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#### **Editorial**

Dear conference participants and readers of Clinical HP,

The international HPH conference 2014 is the first such event on the Iberian Peninsula. The HPH network in Catalonia that hosts the conference was only founded in 2008 but has quickly developed into a HPH stronghold in South-Western Europe. It has recently focused on innovative and timely topics such as health literacy or workplace health promotion. Upon the proposal of the local hosts, the Scientific Committee decided to dedicate this conference to "Changing hospital & health service culture to better promote health". By focusing on this general theme, the conference program acknowledges the need for organizationwide reform and development to support a more health promoting culture in health care, following the demand of WHO's Ottawa Charter for a re-orientation of healthcare services, and concepts of Health Promoting Hospitals and Health Services (HPH). The conference will also address the feasibility of cultural change in healthcare in times of economic crisis.

Under this general heading, 3 specific sub-topics address innovative approaches for hospitals to better contribute to the health of their patients, staff, and community.

Health literacy - an emerging concept for more patient-oriented healthcare: Health literacy is increasingly recognized as a social determinant of health and as such an important foundation of population health which can and should be enhanced by the healthcare sector. Traditional strategies to improve patient health literacy have focused on teaching and training interventions. But there is also an emerging trend to reduce the demands for health literacy that healthcare organizations present to their clients by organizational strategies such as the healthliterate healthcare organizations (Brach et al. 2012). The conference will make the case for integrating these and related strategies under the umbrella of Health Promoting Hospitals. Hospitals as the core organizations of modern healthcare systems and as consumers of huge amounts of healthcare expenditure need to be strongly involved in improving health literacy both for the sake of improved short-term clinical outcomes and for better long-term population health.

Enhancing the health environment for health professionals -Developing a more salutogenic culture for and by healthcare staff: Healthcare staff are one of the most challenged groups of employees. Workplaces in healthcare represent numerous physical health risks such exposure to chemical, biological and nuclear agents, challenges to mental health including working with severely ill and dying patients, and social health risks such as work schemes and limited ability to plan work. Therefore they typically display high turnover rates and have high proportions of early retirement. Many countries face increasing shortages in qualified medical and nursing staff, a problem that is augmented by the ageing of populations and the fact that retired staff cannot be easily replaced any more. One of the strategies that are currently used to address the problem is the migration of healthcare staff which has specific advantages but also disadvantages. Strategies of workplace health promotion and salutogenic organizations are therefore timelier than ever in the healthcare sector. The conference will discuss concepts, strategies and preconditions for better salutogenic workplaces in

hospitals and health service organizations, including managerial interventions and personnel development.

#### Better health care responses to community needs through a culture of cooperation between organizations and settings:

Hospitals and health service organizations are embedded in local communities with specific population characteristics, health and social needs. While the legal regulations and available resources for health promotion towards the community vary strongly between countries and healthcare systems, there are good examples for successful collaboration between healthcare providers and organizations in local communities under supportive conditions. The conference will explore preconditions for, mutual interests of and strategies for collaboration with numerous settings including cities, schools, workplaces, and universities.

Altogether, 15 plenary lectures were invited to discuss these issues. In addition, the conference will have a rich program of oral papers, posters and workshops. The Scientific Committee screened almost 1.000 abstracts which were submitted from 43 countries in all continents.

Of these, 848 papers (79%) were finally accepted for presentation in 32 oral paper sessions and workshops (136 papers), 14 oral mini sessions (63 papers), and 2 poster sessions (649 papers).

Until printing of this abstract book, the program and the beautiful city of Barcelona motivated more than 700 delegates from all over the world to register for the conference.

As usual, the abstract book of the annual HPH conference is published as a supplement to the official journal of the international HPH network, Clinical Health Promotion. By that, conference presentations gain high visibility and recognition which is also supported by the Virtual Proceedings of the conference that will be launched after the event at www.hphconferences.org

We would like to thank the many people who contributed to the program development and to the production of this abstract book: the plenary speakers, the abstract submitters, the members of the Scientific Committee, the session chairs, the Editorial Office at the WHO Collaborating Centre for Evidence-based Health Promotion in Copenhagen, and above all the local hosts of this 22nd HPH conference in Barcelona, Spain.

Jürgen M. Pelikan & Christina Dietscher Vienna WHO Collaborating Centre for Health Promotion in Hospitals and Healthcare



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#### Monday, April 21, 2014

09:00-17:00

**HPH Summer School** 

#### Tuesday, April 22, 2014

09:00-12:00

**HPH Summer School** 

13:00-17:00

**HPH Coordinators Workshop** 

#### Wednesday, April 23, 2014

09:00-16:00

General Assembly for HPH Network and Taskforce coordinators upon invitation only

09:00-15:30

Proposal of ENSH Module on Tobacco Control in Health Care Services

16:00-17:00

Meeting of the HPH Governance Board Upon invitation only!

18:00-18:30

Formal Opening

18:30-20:00

Plenary 1 - Opening Lectures: Introduction to the conference

20:00-22:00

Welcome Reception

#### Thursday, April 24, 2014

09:00-10:30

Plenary 2 - Health literacy: an emerging concept for more patientoriented healtcare

10:30-11:00

Coffee, tea, refreshments

11:00-12:30

Parallel oral sessions 1 from papers received & symposia by HPH task forces & conference workshops

12:30-13:30

Lunch

13:30-15:00

Parallel oral sessions 2 from papers rececived & symposia by HPH task forces & conference workshops

15:00-15:30

Poster presentations 1 from papers received

15:15-15:45

Mini oral sessions 1 from papers received

15:30-16:00

Coffee, tea, refreshments

16:00-17:30

Plenary 3 - Enhancing the health environment for health professionals: Developing a more salutogenic culture for and by healthcare staff

19:30-22:00

Conference dinner

#### Friday, April 25, 2014

09:00-10:30

Plenary 4 - Better health care responses to community needs through a culture of cooperation

10:30-11:00

Coffee, tea, refreshments

11:00-12:30

Parallel oral sessions 3 from papers received & symposia by HPH task forces & conference workshops

12:30-13:30

Lunch

13:30-15:00

Parallel oral sessions 4 from papers received & symposia by HPH task forces & conference workshops

15:00-15:30

Poster presentations 2 from papers received

15:15-15:45

Mini oral sessions 2 from papers received

15:30-16:00

Coffee, tea, refreshments

16:00-17:00

Plenary 5 - Take-home-messages: How can we make the cultural change happen?

17:00-18:00

Farewell refreshments

#### Saturday, April 26, 2014

09:00-12:00

HPH Newscomers Workshop



#### Plenary session 1: Opening Lectures - Introduction to the conference

Organizational culture and the quality of hospital care: lessons for Health Promoting Hospitals and Health Services?

#### **GROENE Oliver**

Various recent high-profile investigations in the UK NHS emphasized that "culture" was among the root causes that contributed to the failures to provide effective, safe and patientcentred care. Consequently, recommendations focused on the need for a "culture change" and the need to improve organizational culture through greater openness, transparency and candour. But genuine culture change is a slow process and can hardly be mandated. It requires changing work routines and mind-sets, at senior levels and among front line staff and some argue among patients, too. Assessments of "culture" may help staff to reflect on quality of care issues and constitute an important metric to balance the predominant focus on financial and quality targets. Yet, a number of issues arise: (i) hospitals are complex organizations that may exhibit multiple cultures, (ii) how culture can be assessed has been subject to considerable debate, (iii) evidence on the effectiveness of strategies for cultural change is limited, and (iv) attributing any change in culture, and ultimately in outcome, to such strategies is challenging. In responding to these questions, this keynote will draw on the results from recent inquiries in the UK, the EU research project "Deepening our Understanding of Quality Improvement" and relevant findings from the international literature.

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The role of health promotion in the Catalan health policy: The Interdepartmental Plan of Public Health of Catalonia | PINSAP |

#### **CABEZAS Carmen**

Catalonia has one of the highest life expectancies in the world, but faces important health challenges related mainly with the big prevalence of no communicable diseases, and the aging of the population. Thus, the main goal is to increase the years of healthy life of the population.

The health of the Population is largely determined by the social determinants of health. Efforts to change health behaviours are most effective when they address the environments in which people make their daily choices. However, public health authorities alone cannot change these environments, since the responsibility for the determinants of health, generally falls under the Departments or Agencies of the Government. Thus, for public health Institutions to achieve their mission – to improve the health of the population – they must work collaboratively with the many government agencies, businesses, and community based organizations which are best positioned to create healthy communities.

The Public Health Act of Catalonia (18/2009) provides that the Interdepartmental Plan of Public Health (PINSAP) in coordination with the Health Plan of Catalonia is the basic tool to develop public health actions in Catalonia and their proposals are mandatory for the government.

The goals of the PINSAP are:

- To incorporate effectively health at the core of government policy ( Health in all policies )
- To involve all government departments, so that they can capitalize on their positive influence on health and
- To improve coordination and to promote synergies involving an increase in the effectiveness, efficiency and equity of policies on health and wellness.

An Interdepartmental Health Council (CIS) was created, according to a Government agreement on the 20th November 2012. The Council includes representatives of all government departments, and is lead by the Public Health Secretary of the Department of Health. In addition, the Department of Health has formed a task force that first began to recognize and to identify the main actions and policies that influence the health of the population and secondly has drafted a new set of proposed actions with the participation of stakeholders.

The design of the Plan is based on the model of social determinants of Health from Dahlgren and Whitehead , that, for its simplicity allows an easy visualization of the influence of various sectors of society in the health of the population. Some adaptations of the model were made to adapt it to the current situation of Catalonia, including a bigger emphasis in the contributions related to social inequalities that influence health and the effects of the economic crisis. The criteria of the Urban Health Institute of the Johns Hopkins University were also taken into account. The international experiences of South Australia, Finland, California and United Kingdom were used as a model.

The selection of proposed interventions took into account the strength of the relationship between each specific determinant and health, the evidence of the effectiveness of the intervention, the feasibility, and the importance of the intersectoral work. Also, the point of view of stakeholders and the added value that incorporates the action were taken into account.

The review of the health effects of interventions on working and living conditions (such as water and sanitation, agriculture and nutrition, access to health and social services, housing, education and transportation) on the adult population in developed countries between 2000 and 2007, highlights the improvements observed for disadvantaged social groups for interventions in terms of housing and employment. More research is needed to improve the quality of evidence available in other topics,

especially in mother and child health, and in the effects of interventions to reduce inequalities. For that reason, is even more important to be careful in the choice of actions, and especially to develop a rigorous evaluation strategy, as long as to take action to promote synergy with research groups to help improving knowledge in this area.

The PINSAP includes a proposal of different actions of two types.

- On the one hand are the interventions that are developed by each of the departments in the exercise of its own responsibilities. The interdepartmental Task Force in this case selected the activities and services of each department that have a significant impact on the health of the population as regards to the promotion and protection of health.
- In addition, the task force had proposed and designed new intersectoral health promotion activities, especially in the context of the living conditions and other social determinants of health.

These actions have been analyzed from the perspective of each of the Departments of the Government and from the perspective of the Department of Health, through bilateral working sessions. PINSAP incorporates a gender perspective in its approach and has received the support of the Catalan Institute for Women.

With the Horizon 2020, the plan includes 30 interventions in 14 areas grouped in two strategic directions:

- To increase the years of healthy life for the population of Catalonia
- To incorporate the health perspective in the design and evaluation of public policies

In relationship with the health status of the Catalonian population, five challenges were identified:

- To tackle the overweight epidemic in both, children and adults.
- The prevention and control of infections, with special emphasis on the sexually transmitted and the human immunodeficiency virus
- The promotion of mental health and well-being and to cope with the health effects of the economic crisis
- To decrease the impact of addictions, especially in young people
- The improvement of the environment of the country, focused in the living and working conditions through intersectoral networking on the social and structural determinants of health

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# Plenary session 2: Health literacy An emerging concept for more patient-oriented healthcare

Health Literacy – an Emerging
Concept for More Patient-Oriented
Healthcare

#### **RUDD Rima**

As we consider how to empower patients within healthcare contexts, we can draw from Paulo Friere who focused on literacy as the foundation for educational and political empowerment and begin to identify those conditions that enable and constrain reflective discourse and action. In this lecture, Rudd groups mechanisms and strategies for empowering patients into three categories: Accessible Information, Navigation, and Shared Decision Making. Health literacy is improved through increased accessibility of health information. True access to health information can be increased by improving the development, organization, and delivery of critical health texts - whether in print, on-line, through mobile devices, or provided in the interpersonal oral exchange. Tools and processes for design, rigorous assessment, and practice protocols are reviewed. Second, navigating the complexities of modern healthcare is a daunting task made more difficult by literacy related barriers. Mechanisms for easing the physical navigation of healthcare institutions as well as for demystifying the conceptual navigation of health and science cultures (language, assumptions, and processes) include staff orientation, skill building opportunities for professionals, and enhanced institutional policies and norms. Finally, shared decision making requires information exchange, conceptual clarity, and balanced dialogue. Decision aids shaped by health literacy insights and opportunities for question asking support these processes. Overall, attention to these strategies can remove literacy related barriers from healthcare and enhance patient empowerment.

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Health Literacy Web Page: <a href="https://www.hsph.harvard.edu/healthliteracy">www.hsph.harvard.edu/healthliteracy</a> Sisters Together Archive Web page:

www.hsph.harvard.edu/sisterstogether



# Making healthcare organizations more healthy – Literacy settings for patients

#### **SUÑER Rosa**

Several studies confirm that health literacy plays an important role in maintaining or improving health and suggest that it could be an unexplored predictor of health disparities. The beneficial aspects of the importance of adopting a culture of health literacy are well known, but how can we increase, from the institutions, the health literacy of our users, making them more accessible and comprehensible, in a systematic manner? From this perspective, work is needed to increase the quality of information and communication with users; both the public and patients should be educated to increase their skills in health and to make health systems more accessible. Data gathered by members of the Health Literacy group are presented related to actions undertaken both in their centers and other health centers in Catalonia on current practices of Catalan healthcare organizations in improving communication and information to users and the strategic lines to make health environments more comprehensible. It also discusses some aspects to be improved to convert healthcare organizations into settings that are more health literate for patients.

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### The contribution of health literacy to patient safety

#### **KLUGE Hans**

The fulfillment of the right to health (a human and patient right) involves all health care sector actors: patients/consumers, governments and health care providers/stakeholders in rendering it concrete. The wealth of health related information and technology development (constantly emerging diagnostics and therapeutics) often combined with a paternalistic medical culture leaves the patient confused and drives reduced access to health services. Promoting patient safety is strictly connected with the development of patient empowerment, and involvement in the process of health promotion and care, including participation in the policy making process. The European Action Plan for strengthening public health capacities and services endorsed in 2012 is a key pillar for implementing Health 2020. It is designed to enhance the social capital that health literacy brings, which is mainly the capacity to understand and preserve own health, while better interacting with health services Countries with targeted health literacy programmes report better adherence to healthy life style behaviour, improved self management of disease and less hospital spent days. The recent European health literacy survey indicates a worrying level of inadequate or

problematic health literacy close to 47% in the 8 countries surveyed. In a context where over 75% deaths occur in the region due to chronic conditions, and where, prospectively, the EU working age population is expected to shrink by 13.6% between 2020 and 2060, long term strategies supporting the health literacy of individuals and populations are needed. Only an informed and empowered patient can actively communicate with the health care provider, and improve the quality and safety of health service delivery. Only a health system approach will ensure progress towards universal access to health services and protect vulnerable populations. The European Framework for Action towards people-centred coordinated integrated health service delivery (CIHSD) under development draws from evidence based policy options and interventions to strengthen patient-provider partnership. Further research could enhance patient/ consumer empowerment and therefore the expression of rights and responsibilities in the process of health preservation. Additionally this could contribute to identifying innovative and collaborative ways towards safer health services, better health outcomes, and increased stakeholder satisfaction.

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# Plenary Session 3: Enhancing the health environment for health professionals - Developing a more salutogenic culture for and by healthcare staff

Developing salutogenic working conditions in health care

#### **BAUER Georg F.**

Developing salutogenic working conditions in health care requires to balance job demands (e. g. unclear roles, time pressure) and job resources (e.g. decision latitude, social support, appreciation). To meet this requirement, three strategies should be combined. First, organizations need to regularly monitor these working conditions from an employee perspective, using an employee survey. Second, the results need to fed-back to work teams, building on an easily comprehensible job-demands resource health model showing relationships between the measured indicators and a related corporate health index measuring the ratio between overall job resources and job demands. This index has been shown to be closely related to disease outcomes as well as to positive health outcomes such as employee engagement and productivity. Third, the capacities of middle managers and of their team members need to be built up to act upon the corporate health index by developing and implementing actions on the individual, team and organizational level that reduce avoidable job demands and strengthen key job resources. Improving the corporate health index by such continuous, participatory improvement processes will reduce stress, increase employee commitment, develop organizational health and thus contribute to quality of health care.

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# How can leadership and training contribute to a health promoting organisational culture?

#### **SERRA Consol**

The workplace is one of the more important health-related settings established in the Charter for Health Promotion (WHO 1986). More recently, it is increasingly clear that the longer you work the longer you live, so promoting healthy lifestyles and appropriate working conditions are important factors to contribute to healthy and long working lives. Hospitals are health producing companies and their professionals' health has an impact on the quality of the service provided. However, there is scientific evidence that health promotion culture is often poor or insufficient in the health sector for a variety of reasons. Organisational development has been suggested as a key strategy for establishing health promoting workplaces, with the involvement at all levels within the organisation, being managers' leadership and education to empower healthcare staff key components for effective interventions to improve organisational culture on health promotion. Health-promoting leadership can be defined as leadership that works to create a culture for health promoting workplaces and values, to inspire and motivate employee participation in such a development, and has been associated with better health and performance outcomes among employees. It is a measurable concept that involves organising health promoting activities, a supportive leadership style and/or developing a health promoting workplace, based on contextual, interpersonal and personal components at both individual and group level. Its development needs some critical conditions such as organisational conditions, characteristics of individual managers and support to managers. Health education has traditionally been a key component of health promotion strategies. However, its effectiveness in changing behaviour is contradictory and needs other components to achieve real changes. Experience from several initiatives in health care suggest that effective health promotion implementation requires change in organisational health culture, that involves education, behaviour change intervention, appropriate facilities, and strategies for developing health-promoting work environments. ReferencesBlake H, et al. Influencing organisational change in the NHS: lessons learned from workplace wellness initiatives in practice. Qual Prim Care. 2008;16:449-55. Della LJ, et al. Assessing management support for worksite health promotion: psychometric analysis of the leading by example (LBE) instrument. Am J Health Promot. 2008;22:359-67. Dellve L, et al. Leadership in workplace health promotion projects: 1- and 2-year effects on long-term work attendance. Eur J Public Health. 2007;17:471-6.Eriksson A, et al. Health promoting leadership different views of the concept. Work. 2011;40:75-84.Nyberg A, et al. Managerial leadership and ischaemic heart disease among employees: the Swedish WOLF study. Occup Environ Med. 2009;66:51-5.Whitehead D. Workplace health promotion: the role and responsibility of health care managers. J Nurs Manag. 2006:14:59-68.

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# Plenary session 4: Better health care responses to community needs through culture of cooperation

#### **E-Health Activities in Taipei City**

#### CHEN Kevin J.

To enhance the effectiveness of public self-health management, Department of Health, Taipei City Government introduces the health cloud model. With "Taipei card" and "Taipei U-Life plan", citizens can place self -measure health data on the cloud, check individual measurement data, and promote self-health management. In order to encourage public participation in health management and health promotion activities, in 2007, Department of Health, Taipei City Government launched the paper card called "Wellness Card". In 2013, Department of Health, Taipei City Government combined EasyCard built-in with IC chip and Wellness Card into Taipei Card. Taipei card offers an alternative ID as a key to access cloud services. Citizens can use Taipei Card as an ID and log on to the health cloud and read or use personal data. Taipei Card offers a solution to the problem of confidential information protection. "Taipei Card" also incorporates with municipal cross-departmental services and it can be used as an electronic wallet using micro-payment capabilities. Taipei U-life project comes from the idea of a hub base network. In physical location, Department of Health, Taipei City Government builds a hub in Taipei U-life village as well as many nodes that could be in public or private places. Through building virtual network, Department of Health can provide health services. For example, Department of Health placed HATM at the node, so the public can use the Taipei Card on HATM to measure blood oxygen concentration, temperature, blood pressure and height and weight measurements and view the result on screen. Citizens can also choose to print out measurement results for record, or use the internet to link health cloud and browse previous measurement data. Up to date, Department of Health, Taipei City Government has set up 15 units of HATM, providing 25,082 times of the service. In the future, Department of Health, Taipei City Government will encourage enterprises to set HATM at the workplace to improve self health management of their employees, customers, and the



community. The Department of Health and the Department of Transportation collaborate to promote the combination of U-bike riding record and Taipei Card service. U-bike riding records can be searched on the health cloud database with Taipei Card. In the future, we will further cooperate with the Taipei City Sports Centers and transfer all kinds of exercise data to the health cloud. Cloud technology built by public sector is mainly used in health information described above. The hospital has medical records. Medical records and health information are different in terms of its nature and purpose of use. However, the hospital can learn from the current health cloud model and apply the cloud model to hospital's medical record.

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Health promotion in school. An approach to enhancing networking with the community and health services

#### **GÁLLEGO Javier**

Health and education are closely interrelated. Health is linked to the daily life of students, teachers and families. It is important to provide a global framework to schools to facilitate coherent learning that promotes personal dimension (learning to care for oneself), the relational dimension (know how living together) and the environment dimension (know how taking care of the surroundings). It is very important to promote the ethics of care, to learn how to care for oneself, others and the environment. It is a basic aspect to address the challenge of chronicity and aging. A health promoting school is one that promotes the health and welfare of the school community through healthy organization, an educational program aimed at promoting life skills, a performance in front of the main determinants of health (diet, physical activity, emotional health, living together, healthy environment,...), the participation of the school community and good relations with the surrounding environment. The relationship between schools and health services is presented in: 1) The school curriculum is the basis of health literacy, lifelong learning and empowerment. 2) School teaches personal and social determinants of health and promotes responsibility in the management of personal and collective health. 3) Collaboration between health services and schools improves student learning about the organization and operation of health services. In our experience to foster a culture of collaboration between schools and health services is important: 1) Connecting health and educational policies, creating a framework for global collaboration, defining common goals, languages and working models for facilitate health literacy of citizens of the future. 2) Networking in the territory looking for opportunities and synergies of working together. 3) Training teachers and health professionals to encourage dialogue and collaboration.

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Universities and health care organizations: What can they learn from each other as settings for health promotion?

#### STOCK Christiane

The concept of the Health Promoting University has been developed as an example of settings-based health promotion in the late 1990s. Three main arguments have been raised for promoting health within institutions of higher education: (1) universities are large institutions in which many people live and experience different aspects of their lives; (2) students will become professionals and leaders in society and that therefore universities can increase the commitment to health in a wide range of disciplines; and (3) universities can set an example of good practice with outreach into the community. This presentation will outline the themes, actors and structures of universities as health promoting settings and will link these with corresponding areas in the context of health care organizations. Special focus will be set on discussing opportunities for collaboration between universities and health care organizations with regard to healthy workplace conditions, education and research as well as advocating for health and acting as a change agent.

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#### Plenary session 5: Take-homemessages: How can we make the cultural change happen?

Peer-to-peer healthcare is changing the world

#### FERNANDÉZ Jorge Juan

Hospital Sant Joan de Déu (HSJD) in Barcelona, the largest children's hospital in Spain and among the top 5 in Europe, has been running an initiative to radically transform the delivery of care:

The Liquid

Hospital"(http://www.hsjdbcn.org/portal/es/web/hospital\_liquid ). This initiative encompasses more than 20 projects seeking to radically transform healthcare through an intensive use of technologies oriented towards the patient. HSJD aims to be a Liquid Hospital, providing services and content for the patients beyond the physical buildings of the hospital. HSJD is the most relevant example in Europe where a hospital is using online care, telemedicine, mobile apps and health 2.0 tools to put the patient in the center of care.

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### Evolving roles of hospitals in health promotion

#### **DE ROODENBEKE Eric**

Most of hospital health promoting activities have been driven by very specific programs related to major risk factors. Although there is still a long way to go for making hospitals more active in health promotion, there are some major changes that will impact the role of hospitals in health promotion. The five major trends that will totally change the paradigm are the following: role of people in regard to health with expected increase of empowerment in relation to access to information. evolution of the burden of diseases with multi-chronic conditions obliging to consider health promotion more systematically and an earlier stage but more related to specific health status. breakthrough of predictive medicine making health promotion an individual approach in relation with identification of very specific risk factors. -The dissemination of Electronic health Record that will allow a systematic inclusion of health promotion as part of clinical follow up of any individual. -Universal health coverage as a key societal value obliging health care to be more cost effective to be sustainable on long run. This will drive healthcare to population health and wellness. But are hospitals really ready to move into this direction and is their leadership driving toward such a change in the importance of health promotion in the healthcare activity mix? An initial survey is giving some trends but the next step would be to develop a more systematic approach of the need for such a shift.

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# Session O1.1: Developing health literate healthcare systems and organizations

Further Developing concept and tools of the Health Literate Health Care Organization using HPH, HLS-EU and quality management methodology?

### PELIKAN Jürgen M., DIETSCHER Christina, LORENC Jakob

#### Introduction

The concept of health literacy, a core concept of health promotion, is increasingly being discussed as a relevant determinant of individual health and health disparities and as a measurable structure, process and outcome quality of healthcare systems. An integrated definition of health literacywas proposed as a result of the HLS-EU study (Sorensen et al. 2012) as "people's knowledge, motivation and competences to access, understand, appraise, and apply health information in order to make judgments and take decisions in everyday life concerning healthcare, disease prevention and health promotion to maintain or improve quality of life during the life course" highlights. Thus, the concept appears highly relevant to Health Promoting Hospitals.

#### Purpose/Methods

Health literacy is a relational or interactive concept, relating individual competences to contextual or situational demands concerning health relevant information and communication. Therefore, health literacy can be improved both by enhancing the personal abilities of people and / or by changing contextual demands, such as the transparency and navigability of healthcare systems and organizations. The latter approach is taken by the Institute of Medicine in the USA who summarized 10 attributes of a health literate organization (HLO), to extend the traditionally strong focus of clinical medicine on the individual component (via patient information, education and counseling) also to the organizational development of health care organizations. But this concept was not adequately linked to quality management and health promotion in these organizations. Therefore the IOMconcept has been further developed using these approaches and the health literacy definition of the HLS-EU study. Furthermore no systematic translation of the further developed concept into standards and indicators was available, but has been worked out in a project by LBIHPR. A number of hospitals in the USA already have used parts of the IOM-concept and related tools in their everyday practice. As far as documented these practices have been collected and analyzed and also will be presented and discussed in the presentation.

#### Results

The presentation will propose a further developed concept for Health Literate Health Promoting Hospitals, provide a list of standards and indicators for self-assessment of Health Literacy of hospitals and present and discuss strategies of mostly US-American hospitals who already have use the concept and related tools in their everyday practice.

#### Conclusions

Concluding recommendations for Health Promoting Hospitals will be formulated.

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Health Literacy, Chronic Illness, and Use of Primary, Secondary and Tertiary Healthcare - Making the Case for Health Literate Organizations

### LEVIN-ZAMIR Diane, BARON-EPEL Orna, ELHAYANY Asher,

#### Introduction

The evidence base for health literacy shows that lower health litearcy is significantly associated with poorer health status, challenges in adherence to , medical recommendations, less use of preventive services, and early mortality. Most of the research has focused on functional health literacy, and has been conducted among special populations. National data, based on measuring health literacy according to the broad sense of the concept is essential for health promotion planning, particuarly when developing health literate organizations.

#### Purpose/Methods

To assess the level of health literacy in the Israeli population and to study the association between health literacy, social determinants, and association with measure of healthcare service use, health behavior, and reported health.

The Health Literacy Survey of Israel (HLS-ISR) was based on the Health Literacy Survey of Europe (HLS-EU) was conducted in 2012-2013 among a representative sample of 600 adults in home interviews, following qualitative formative research. The study was conducted in Hebrew, Arabic and Russian.

#### Results

Low health literacy in Israel is associated with significantly higher rates of chronic disease, more frequent visits to family physicians/medical specialists, to emergency services, and higher initial and repeated hospitilization (p<0/0001). At risk for low health literacy are people with lower socio-economic status, less years formal education, lower self-evaluated health. Health literacy was positively and significantly correlated with physical activity, while no association was found with other risk behaviors (smoking, etc).

#### Conclusions

The results reflect: 1. the responsibility of the health system for providing more health literacy resources and cultural appropriate services; as demonstrated in this study, people with low literacy use health services at all levels, significantly more than those with higher health literacy. 2. the opportunities for Health Promoting Hospitals based on the settings approach to health promotion, to plan, implement and evaluate interventions for improving health literacy as measured both in Israel and Europe.

#### Comments

The presentation will include examples of HPH activity promoting and adapted to health literacy, based on the health literate organization model, and adapted to the cultural diversity in Israel

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A Path to becoming a Health Literate Organization: Lessons Learned from the Experience of a Public Health Authority in Canada

#### MASSÉ Richard, LEMIEUX Valérie

#### Introduction

Tackling low health literacy (HL) is one of many strategies that contribute to reducing health inequalities, as low literacy often stems from cultural, social and economic barriers.

Healthcare organizations can support persons with low levels of HL through practice change and carefully planned interventions. The aim of this presentation is to share the lessons learned and the strategies developed from our experience in striving to become a "health literate organization".

#### Purpose/Methods

An analysis of the distribution of low health literacy in Montreal, Canada was conducted to characterize vulnerable communities. Best practices and available tools were reviewed, and a HL guide was developed as there was no comprehensive HL tool in French language. Strategies were built to foster practice change within the organization and raise awareness among partner institutions. These will be detailed, along with examples from an initiative targeting low literacy women to facilitate decision-making on breast cancer screening.

#### Results

Most of becoming health literate is letting go of the fear of «not saying enough» and learning how to prioritize health messages. Translating «literacy friendly» values into practice takes commitment, effort, humility, and often implies building a whole new set of qualities and beliefs for health professionals. Finding

effective strategies to reach low literacy populations and involving members of these populations as well as training communication teams are the cornerstones of becoming health literate.

#### Conclusions

As part of our action plan to address health disparities, we aim to make it easier for all people -including persons with low literacy to navigate, understand, and use information to act on their health. The lessons learned from our experience in becoming a more « health literate health organization » may inspire and help troubleshoot similar initiatives from health care organizations in the future.

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#### Health Literacy as a system strategy in Emilia-Romagna

### GAZZOTTI Federica, RICCÒ Daniela, CHIARENZA Antonio, RUOZI Corrado

#### Introduction

The highest educational qualification attained by almost half the adult Italian population is a middle school diploma. Also, the recent PIAAC study found that Italy was in last place for literacy skill and next-to-last (ahead of Spain) in numeracy. In 2011, the Emilia Romagna Regional Healthcare Policy Department set up a work group whose task was to organise a Health Literacy training programme on the subjects of professional/patient communication and the effectiveness and intelligibility of informative material.

#### Purpose/Methods

The course, taught by Professor Rudd in 2011 and 2012, involved 4 professionals (2 health care professionals in the oncology field and two communicators) for each of the 19 regional health authorities and hospitals. At the end of the course, 35 of the more than 70 participants, after special training in classroom control, became peer trainers themselves. Then repeat editions of HL training courses for health care professionals began at all regional health authorities, and communicators started to apply HL techniques during production and revision of informative material.

#### Results

In this context, the experience of the Reggio Emilia Local Health Service is reported as a concrete case of developing the regional programme. Here, 5 editions of the course were given in 2013. The courses involved 116 professionals (physicians and nurses in the oncology day hospitals at the 5 district hospitals and in the home nursing service, as well as general practitioners and primary care paediatricians). The training included lectures,



individual exercises, group work, and role playing to simulate the teach back method.

#### Conclusions

Many participants said that before the course, they had no idea of the actual literacy level of the adult Italian population. The learning questionnaires filled out by participants revealed that solid results can be obtained after only a few hours of instruction, along with a new awareness that terms used on a daily basis are not intelligible, and a recognition of the patient's right to understand what is being said. Furthermore, it is often suggested that HL courses be mandatory for all employees.

#### Comments

All regional health authorities are committed to providing repeat editions of the courses over the next few years and to ensuring that close attention be consistently paid to the intelligibility of informational material. The Regional Office of Health Policy is maintaining its commitment to the principles and techniques of HL. To this end, the development of training programs and the revision of informational material are now among the goals mandated for the general managers of health authorities.

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Evaluating Making Every Contact
Count (MECC): Results of a pilot study
to develop a practical evaluation
framework in Wessex

### DEWHIRST Sue, RAHMAN Em, SPELLER Viv,

#### Introduction

Making Every Contact Count (MECC) is an approach to cultural change in how organisations and workforces interact with the public, recognising opportunities for promoting health and healthy lifestyles by providing brief advice and signposting using behaviour change techniques. MECC is identified in key English policy documents. Wessex is piloting MECC in health and nonhealthcare settings, developing and testing an Evaluation Framework based on PRECEDE-PROCEED, focussing on impact of MECC on organisational and contextual factors, and workforce development.

#### Purpose/Methods

The Wessex MECC Pilots operate in different service contexts providing an opportunity to evaluate implementation of an evidence-based behavioural change approach tailored to different client needs and organisational settings, to understand how to adapt and improve intervention reach and acceptability. They aim to develop a practical evaluation framework useable within limited resources, and transferable between contexts. At

each site organisational readiness, staff knowledge and awareness, impact of staff training and service changes are assessed quantitatively and qualitatively.

#### Results

Three types of healthcare settings in a Hospital Trust participated, 63 staff from diabetes, physiotherapy and occupational health services. Further healthcare settings and one council housing department will participate in 2014. Initial results will be presented of: organisational readiness; pre- and post-MECC survey and 'Healthy Conversations' training evaluations to assess changes in staff skills and confidence; staff interviews to assess barriers and facilitators to implementing MECC; referrals to other services to evaluate health behaviour change and potential economic benefits.

#### **Conclusions**

Implementation and evaluation of the Wessex MECC Pilots provides a solid foundation for scaling up the intervention based on process evaluation, leading to greater understanding of organisational and workforce barriers and facilitators to changing hospital and health service culture to better promote health. The evaluation framework and tools will provide for systematic local and regional data collection from future MECC implementation to contribute to the evidence for behaviour change and support for development of a sustainable health-promoting health service.

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# Session O1.2: Concepts and models for age-friendly healthcare

"Contrast to restraints and bad practices": a project to contrast mechanical, pharmacological and environmental restraints for the elderly

#### BICEGO Livia, MISLEJ Maila, MAGGIORE Adele, BERGAMINI Pier Riccardo, PANDULLO Claudio, ATTONI Francesco

#### Introduction

The number of "very old people" is increasing and this trend affects the whole EU. It is expected that by 2050 older people's number in Europe will increase by 170%. The third and fourth age are characterized by complexity and fragility. Often the answer offered to the elderly is the institutionalization (18.7% in Italy are frail and 2.7% are hosted in institutions) where there is risk of mechanical, pharmacological and environmental restraints. We need to ensure respect for their rights.

#### Purpose/Methods

Purpose: Bring out the hidden widespread phenomenon Inform that the restraint is not a medical act Give voice to senior citizens Involve community agencies Specific training Implement organizational changes to multi-disciplinary, multiprofessional, inter-agencies measures Methods: Investigation and monitoring Denounce the phenomenon Organize congress Establishment of a specific commission Definition of a integrated and shared view Training course Involve different situations and realities Involve public opinion Public scientific papers

#### Results

Establishment of a specific Commission Emergence of the phenomenon locally, regionally and nationally Public and local agencies awareness Implementation of innovative approaches in healthcare setting Training events Drafting of a reference text Elimination of restraint in residential facilities Involvement of Professional Orders Involvement of Magistracy and local law enforcement Interviews and publishing of articles Participation in conferences and studies Specific lessons to degree courses Reducing femoral fractures in people over 65 years Created web site "Trieste free from restraint"

#### Conclusions

Eliminate bad care practices and restraint in all its forms is a duty. It needs a cultural and professional revolution. A key result is the knowledgement that restriction cannot be prescribed. The project is active in the residential care facilities in Trieste. Many families and many operators do not ask to contain the elderly anymore. Many organizations ask us how to do. The discussion is

open to national and international debate. The city of Trieste declares itself free from restraint and open city network.

#### Comments

The project involved the Hospital, the University, the Municipality of Trieste and numerous private residential facilities. General practitioners, some judges, the pensioners' unions, local media and the community at large were involved. All material available has been spread as much as possible in order to involve, inform and encourage a culture of good practice. Today the challenge is to reach this result in all Italy and European community.

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# Designing an Age-friendly Intervention for Early Detection and Case Management of Dementia in Community Care

#### HSU Chiu-Tien, TSAO Wen-Lung, LIN Ming-Nan, LIAO Hui-Yen, LIU Chiu-Man, CHEN Chun-Po

#### Introduction

Community-based early detection and prevention will become increasingly important for people with dementia. Currently, the services for dementia and early dementia patients are fragmented and the quality of care is variable. We developed and integrated community program for detecting and management of dementia and early dementia patients. Working with local government, community volunteers and health professional in hospital, We implemented a collaborative program for our senior citizens in community.

#### **Purpose/Methods**

A naturalistic observation method was employed to collect relevant data among patients with dementia. By cooperating with communities, we regularly hold health care and health prevention activities, such as early dementia screening, health education, health promotion, memory clinic, pharmacological and non- pharmacological intervention, and follow-up. With these activities, we try to integrate medical care and community care into an age-friendly intervention for dementia. AD8 scale was used to evaluate elders with mild cognitive impairment. Patients with abnormal AD8 score were assessed using the Mini-Mental State Examination and the Clinical Dementia Rating Scale.

#### Results

After one-year intervention, 244 subjects were diagnosed as demented and treated. A complete case management was done in 207 of them, including assessment, giving advice and information, planning, pharmacological and non-pharmacological



intervention, and monitoring of care. Forty-nine patients were reassessed with MMSE and CDR after one-year intervention, other patients were continued to be treated. We observed non-significant deterioration in the total MMSE score and CDR levels in 49 patients at one-year compared with baseline (MMSE:15.40  $\pm$  5.04 vs. 15.43  $\pm$  5.18;CDR: 1.21  $\pm$  0.73 vs. 1.24  $\pm$  0.65).

#### Conclusions

We have successfully overcome many system-level barriers in implementing an age-friendly collaborative care model for early dementia in community. We hope these efforts are made to encourage progress toward the development of effective and friendly dementia care policy in Taiwan.

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# Sustainable development of health promoting residential aged care? Follow-up of a pilot project in Vienna

### KRAJIC Karl, CICHOCKI Martin, QUEHENBERGER Viktoria

#### Introduction

"Health has no Age" was a pilot project for the health promoting settings approach in residential aged care, conducted in Vienna 2011-2013. The project involved three units of the largest Austrian provider organisation, three health promotion actors and health promotion research. The pilot project confirmed feasibility of the comprehensive approach and added to knowledge on needs assessment and specific interventions, e.g. mobility enhancement for residents. Developmental work continued in 2013 and is supported by evaluative research.

#### Purpose/Methods

The purpose of the follow-up is to investigate sustainability of the comprehensive approach by monitoring ongoing developmental processes, including overall health promotion strategies of the organisation as well as specific measures addressing staff, residents and residents' relatives. Evaluation studies were conducted in a formative and summative perspective throughout 2013 following a multi-method approach, applying document analysis, observation, open and standardized interviews and focus groups.

#### Results

Effects of a mobility enhancement program for residents were found sustainable; positive effects on subjective health remained stable one year after intervention. As effect on the organisational level, the program was rolled out to all units of the provider. Concerning staff health, the implementation of the new role of "ergonomic guides" was found to need further adaptations such as support in the area of knowledge and skills as well as a clear role definition supported by local management.

#### Conclusions

Health promotion development, initiated in the pilot project phase, has an ongoing impact on the three units involved and moreover also on the larger provider organisation. Although the general judgement is positive, more or less successful areas can be identified. Some of the problem areas turn out to be instructive for learning more about general chances and challenges for health promotion in aged care. The presentation will discuss some of these issues in detail.

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## The role of Primary Care in a model of integrated care for people with dementia

#### FABBO Andrea, DE VREESE Luc Pieter, FELTRI Gaetano, DE LUCA Maria Luisa, MARCHESI Cristina

#### Introduction

The increasing burden of patients with dementia has prompted the local government of Emilia-Romagna to deliberate the "Regional Dementia Project" (1999). The design includes specialized out-patient clinics with competencies for diagnosis and care planning. A targeted project of the Public Health Agency of Modena has been implemented to involve the family physician in dementia screening and follow-up, by means of accreditation courses, promotion of uniform screening instruments and structured annul following up of the patients with epidemiological reporting; the family physician is seen as pivotal in providing a continuum of care over the long natural history of the disease. The main outcome of this agreement is to improve the quality of life and health of demented individuals and their carers, permitting people with dementia to remain at home as long as possible, and to promote the management of dementia patients by the primary care physicians (PCP). The specialized referral clinics offer diagnostic competencies and consult for specific problems.

#### Purpose/Methods

The protocol consists of two phases: in the first phase, when the PCP suspects a diagnosis of dementia, he/she administers simple, standardized screening tests, such as the Symptom of Dementia Screener (S.D.S.) and provides an assessment of somatic morbidity and functional status. Lastly, the PCP prescribes blood chemistries and instrumental examination, as suggested by international diagnostic guidelines. When the S.D.S. score is >6 and the MMSE score is <27, the PCP refers the patient to the specialist; after the diagnostic work-up the patient returns to the referring PCP with a care plan and advice for future management. As needed, the family may be referred to a psychologist, for

individual or group support. In the second phase, the PCP will track the illness with a yearly multidimensional assessment. In addition, the PCP stages the emotional and psychological distress of the cares to identify the need for psychological or social support. As needed, the PCP can enrol the person with dementia in a program of home care assistance (ADI).

#### Results

A total of 385 physicians have participated (63 % of all 610 PCP in the public health service of the province) in the period 2007-2010. The mean age of the 6.902 patients (F= 4.744, M= 2.158) enlisted was 82 years; mean MMSE score 11.92; median somatic comorbidity was 4 diseases; mean ADL 2.6. One third (31.2%) of the case series was not taking psychotropic agents; one half (53.5 % took one, 14.7% two, and 0,6 % three classes of psychoactive agents (neuroleptics, antidepressants, and cognitive enhancers – anticolinesterase inhibitors). A total of 72.7 % subscribed to one or more home health care services.

#### **Conclusions**

In order to keep patients in their home or community as long as possible, specialist services will support the PCP for the management of critical situations during the course of the disease. A syllabus of continual education in psycogeriatrics for the PCP and service of psychological family support is in progress. Referral to the specialist centers by the PCP has for the most part been correct. It is necessary to simplify the protocol for referral, providing greater emphasis on clinical history than standarized tests. On the other hand, follow up of the disease is best handled by standarized instruments. The exchange with the specialist services and PCP must be improved to facilitate sharing of information and redirection of the support of the specialist more towards the PCP and less directly to the family.

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The relevance of organizational factors for implementing health promotion in long-term care facilities

#### MARENT Benjamin, WIECZOREK Christina, SCHMIED Hermann, HORN Annett, KLEINA Thomas, SCHAEFFER Doris, DUER Wolfgang

#### Introduction

Implementation research is an emerging topic in the field of health promotion. It stresses the gap between evidence-based health programs and their effective implementation in practice. This gap is also recognized in long-term care (LTC) facilities, where health promotion programs for the elderly that proved efficacy are often slowly and inadequately adopted. To date, there has been little research on how organizational

characteristics of LTC facilities, which differ significantly from acute and primary care settings, influence implementation processes.

#### Purpose/Methods

By a qualitative research approach the implementation of a physical activity program for the elderly has been examined. Thereby, organizational factors that either facilitated or impeded the program implementation should be identified. The program was implemented (2013) as a pilot project in three facilities of the largest LTC provider in Austria. Care aides received training to accomplish physical activity groups for elderly. 12 semi-structured qualitative interviews with all persons responsible for program implementation (executives and adopters) have been conducted.

#### Results

Program implementation was perceived as additional burden since the organization has been undergoing extensive change processes. Executives proved successful leadership by anchoring the program in organizational policies and stimulating motivation for change. Operative management task were often neglected since no additional resources and opportunities for collaboration and exchange were facilitated. Adopters (care aids) perceived the program as compatible with their values, knowledge and practices but also experienced tensions (related to program ambiguity, complex group interactions and clients safety) during implementation.

#### Conclusions

Organizational factors significantly influenced the program implementation. Study outcomes reveal that leadership needs to be balanced with management efforts. By creating opportunities for collaboration and exchange care aids can become empowered to manage tensions accompanying the implementation of a physical activity program in a group setting with frail elderly. The experience of tensions points out that care aids seriously attempted program adoption. Therefore, the compatibility of the program with the adopters' role perspectives and practices was essential.

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### Session O1.3: Improving cultural competence in healthcare

Developing migrant-friendly organisations: From assessment to implementation

**CHIARENZA Antonio** 



#### Introduction

Rather then creating an inclusive and responsive environment, the health care system risks perpetuating the stress migrants may feel in their everyday life, if it fails to address a number of barriers in the access of services and quality of care for this vulnerable group. As shown in the MFH project, integrating interpreting services, patient information and education strategies and staff training in the policy and management system of the organisation is a key to successful responsiveness to migrant needs. These measures are well known to all of us, and there is general consensus that they are indeed needed in order to adapt health care organisations to diversity. However, many obstacles remain, preventing the transformation of this knowledge into action.

#### Purpose/Methods

To face these challenges and to favour the effective implementation of policy measures in health care organisations, the Task Force on MFH proposes the use of a set of standards for assessing equity in five main areas of the health care organisation: Policy and planning; Access and utilization; Quality of care; Users participation and Equity promotion outside the organization. The final aim of this project is to provide health care organisation with a tool that allows them to assess the level of accessibility to health care for migrants and other vulnerable groups and to guide them in the implementation of improvement measures.

#### Results

These standards were piloted from April to October last year in 45 health care organizations - 5 in Australia, 10 in Canada, and 30 in Europe. The aim of the pilot—test was to evaluate clarity, relevance and applicability of the standards in pilotorganisations. The overall evaluation process was positive and provided important indications for the revision of the standards from pilot institutions. Comments on the applicability of the standards provided important indications for effective implementation of the tool in health care organisations, with regards to national legislation, health systems organisation and socio-political contexts.

#### Conclusions

The findings of the pilot-test suggested important next steps to facilitate the implementation and dissemination of the standards to a wider global audience. The next phase of the project will include activities to develop a self-assessment tool that health care organisations can use to benchmark structures, processes and results related to health equity. To this purpose the TF MFH will undertake a second pilot-test to evaluate how institutions can utilize the standards and self-assessment process, as well as to explore challenges and opportunities for effective uptake in connection with existing policies and practices.

#### Comments

National and regional networks are invited to participate in the second pilot test that will take place from March to November 2014. The aim of this presentation is to focus on the work to date of the Equity Standards project and future actions regarding the pilot test implementation.

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### Strategies on migration and health in Catalonia

### LIZANA Tona, CABEZAS Carmen, GRANERO Lluis

#### Introduction

Immigration has been a growing phenomenon in Catalonia, where the migrant population has increased by over a million people, going from 2.9% of the total population in 2000 to 15,68% in 2012. This situation resulted in a challenge for the public health services that were forced to be adapted in order to meet the new demands and needs of the migrant population.

#### Purpose/Methods

To overcome this challenge the Catalan Health Ministry developed the "Immigration and Health Plan" to define and implement strategies orientated to improve the access of the migrant population to de Catalan health system, as well as the quality of the health services provided. The Plan established the actions to implement three main strategies: the Reception Plan, the Professional Training Plan and the Intercultural Mediation Plan, the last one being the most relevant.

#### Results

The Catalan Health Ministry signed an agreement with a financial foundation ("la Caixa" Foundation) to support the implementation of the Intercultural Mediation Plan. The Mediation Plan included the training and recruiting of more than 50 intercultural health mediators that provided their services in more that 60 Health Care Centres. The project was been evaluated both qualitatively and quantitatively.

#### Conclusions

The intervention of intercultural mediators improve the quality of the health interventions and its outcomes. It also has been very useful to readdress the actions planned in order to improve the quality of the mediation services provided, as well as to plan the sustainability of the project through its orientation to the community intervention.

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Assessing Equity in Healthcare in Norwegian Health Care Organizations using the WHO-HPH TF MFCCH's Standards for Equity in Health Care

### for Migrants and other Vulnerable Groups

#### LE Christopher, KUMAR Bernadette Nirmal

#### Introduction

International migration poses new challenges to health services. Norwegian Laws stipulate that equitable health services are made available regardless of age, gender, ethnicity or geography. However, documenting inequity in health care is essential for generating evidence, such that services can be adapted to the patients' needs.

#### Purpose/Methods

NAKMI, a member of the WHO HPH-Task Force on Migrant-Friendly and Culturally Competent Healthcare, successfully managed to pilot a set of 5 preliminary Standards for Equity in three University Hospitals and one Nursing Home in 2012. In the course of the piloting we conducted 27 focus groups and collected data from 148 evaluation forms.

#### **Results**

Assessing equity in healthcare using focus groups raised awareness, reflection and reaction among health professionals. Varying perceptions of equity, high expectations attributed to legislation, lack of standard policies and strategies with diverse tasks could contribute to low level of compliance with the standards. We found that most of the measurable elements in the standards were relevant and applicable for Norwegian health care organizations. However, the language and terminology used has to be further clarified, simplified and adapted to the local socio-cultural environments.

#### Conclusions

These findings were useful in revising and amending the preliminary standards, along with the results from other 41 institutions from 11 countries, such that they can be implemented in 2014.

#### Comments

This abstract may also be considered for the topic of Sustainable and health promoting health services.

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Cultural Sensitivity of Healthcare
Office Staff and Its Association with
Patient Treatment Adherence

#### WALL Whitney, RONCORONI Julia

#### Introduction



Research on patient-centered culturally sensitive healthcare suggests that patients' interactions with their front desk office staff are important factors in these patients' overall healthcare experience, healthcare satisfaction, and treatment adherence. However, research on patient-centered culturally sensitive healthcare focuses almost exclusively on provider care. The present study tested the hypothesis that patient-perceived cultural sensitivity of front desk office staff has a significant positive association with patient treatment adherence and that this relationship is mediated by patient healthcare satisfaction.

#### Purpose/Methods

Study participants consisted of a culturally diverse sample of 1,191 patients from 67 health care (e.g., hospitals, community health centers, private practices) sites across the United States. After obtaining IRB approvals, patients completed an assessment battery, including four questionnaires that investigated the variables of interest: (a) a demographic data questionnaire, (b) The Adherence to Treatment Measure, (c) the General Satisfaction subscale of the Patient Satisfaction Questionnaire—Short Form, and (d) the Tucker Culturally Sensitive Health Care Office Staff Inventory—Patient Form.

#### Results

A mediation analysis was conducted using Preacher and Hayes's (2008) SPSS Indirect macro. Front desk office staff cultural sensitivity had significant direct paths to treatment adherence, t =15.08, p < .001; t =17.22, p < .001, and satisfaction had a significant direct path to treatment adherence, t =10.21, p < .001; t =10.24, p < .001. Satisfaction fully mediated this relationship. This model was significant (F(2, 1188) = 69.18, p < .001), explaining 10% of the variance in treatment adherence.

#### Conclusions

The present study revealed a significant positive relationship between patients' perception of the cultural sensitivity of their front desk office staff and their treatment adherence. Patients' healthcare satisfaction fully mediated this relationship. These results suggest that patient-perceived cultural sensitivity of front desk office staff may be an essential component to patient care; and in turn, front desk office staff may be an important target population in efforts to improve patients' healthcare satisfaction and patients' adherence to their providers' treatment recommendations.

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Health in the neighborhoods: health needs assessment for vulnerable populations

#### GONZALEZ Angelina, CABEZAS Carmen, CAAMIÑA Iria, CARDONA Angels, E IBAÑEZ, CLARAMUNT Adela, CASES Carme

#### Introduction

Primary Health Centers (PHC) are health assets for the community they belong. In 2004 Catalan Government enacted the "neighborhood's law" (NL). NL co-finances municipality (M) projects of urban&social regeneration of vulnerable neighborhoods, thus improving structural determinants of health. "Health in the neighborhoods" (HiN) is created to complement NL projects. HiN facilitates community health processes (CHP) with the aim to reduce health inequalities. Catalan Public Health Agency (CPHA) leads HiN and creates a "Catalog of Public Health Programs&Services for HiN" (CPH-HiN).

#### Purpose/Methods

Purpose: HiN description and process results. At each area motor group (MG) of health&social institutions starts/legitimates HiN. Steps CH: 1)Needs/assets assessment and intervention proposals: i) qualitative workshop (QW) with local health providers (primary health center, hospital, mental health, drugs and women's health), social services and community institutions; ii) Citizens QW. 2)MG prioritizes/legitimizes interventions which form "HiN local project", complemented by CPH-HiN; 3)Follow-up commission (FC) leads intervention&evaluation

#### Results

From 2004-2010 140 NL municipal projects have been accepted and HiN developed in 79 of those (722.276 inhabitants, almost 10% inh. Cat). More than 750 professionals and neighbors engaged. 85 QW performed and 79 HiN reports. To data HiN: 28 process ended, 32 in follow-up phase, 11 in prioritization and 3 starting phase. 136 involved professionals asked about satisfaction with HiN: 86% would recommend NiH to a peer professional.

#### **Conclusions**

From 2004-2010 140 NL municipal projects have been accepted and HiN developed in 79 of those (722.276 inhabitants, almost 10% inh. Cat). More than 750 professionals and neighbors engaged. 85 QW performed and 79 HiN reports. To data HiN: 28 process ended, 32 in follow-up phase, 11 in prioritization and 3 starting phase. 136 involved professionals asked about satisfaction with HiN: 86% would recommend NiH to a peer professional.

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### Session O1.4: Supporting alcohol awareness and prevention

### Alcohol consumption in Estonian primary health care patients

#### PÕLLUSTE Kaja, DUDANOVA Veera, KALDOJA Anne, KANSI Helve, KASK Liina, OJA Ivika, TAMMIST Piret, LEMBER Margus

#### Introduction

Early detection and brief intervention of risky alcohol consumption (AC) in clinical settings is considered an effective strategy to reduce the alcohol-related harm. In 2012 the researchers from the Department of Internal Medicine at the University of Tartu initiated a prospective study ALTOKROON with the aim to explain the role of alcohol and other lifestyle-related factors in progress and prognosis of several chronic conditions among the patients of Tartu University Hospital and selected primary health care (PHC) centres.

#### Purpose/Methods

In this study we explain the prevalence of AC in patients of PHC centres and the factors associated with hazardous AC. We identified the level of AC using the Alcohol Use Disorders Identification Test (AUDIT). The patients' quality of life (QoL) was measured with the SF-36. Additionally, some data about the patients' health status were collected. During May-November 2013, altogether 756 consecutive patients aged 18-92 (mean 47.6 years) from six PHC centres were involved, of them 39% male patients.

#### Results

A hazardous drinking was found in 13.2%, harmful drinking in 1.3% and alcohol dependence in 1.2% of patients (AUDIT scores 8-15, 16-19 and ≥20, respectively). The regression analysis demonstrated that the AUDIT score ≥8 was determined by younger age (OR=3.59, 95% CI=1.92-6.37), male gender (OR=9.35, 95% CI=5.10-16.95), smoking (OR=3.74, 95% CI=2.14-6.53) and lower BMI (OR=1.58, 95% CI=1.14-2.20). Correlation analysis showed associations between the higher AUDIT score and better ratings of QoL, which, however, were lost after controlling for age.

#### Conclusions

Majority of patients belonging to the risky drinking group were identified as persons in increasing risk (hazardous drinking). This pattern of drinking is more common in smoking men of younger age with better self-reported QoL who may not perceive the risk of alcohol-related harm. Thus, this group of patients should be aware of their AC and the consequences of that. Therefore, the screening of AC should be recommended for younger persons with good self-reported health, too.

#### Comments

In this prospective study all patients with AUDIT score ≥8 underwent a brief counselling and their AC will be evaluated after one year.

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#### **Existential aspects of AUD**

#### **ARLEBRINK Jan**

#### Introduction

Most research done on Alcohol Use Disorder (AUD) concerns biological, neurochemical or genetical factors, but there are probably other important factors which may help to explain AUD. One such factor may be the person's view of life.

#### Purpose/Methods

An interview study was done with 35 AUD patients to find out what the patients view of life looked like; if they were able to verbalize this. Subjects being looked upon were among others: how the patient looked upon his moral responsibility, the value of man, how he looked upon his own value, the free will, meaning of life, faith, view of life, spirituality.

#### Results

The findings were that most patients were, what you may call, existentially empty. They could not verbalize any view of life and this emptiness was probably replaced by alcohol. The patients also scored very low on the Sense of Coherence Scale (Antonovsky). The average point for this group was 108. For a normal population the average point is 145-150.

#### **Conclusions**

Existential emptiness may be one important factor, together with other factors, to explain AUD. It's important not to forget this variable when treating alcoholism.

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### Nurses` competence in substance abusing patient care

#### **VIRTANEN Petra**

#### Introduction

In health care there is a lot of substance abusing patients due the prevalence of alcohol use and its effects on health. Researches shows that nurses' knows the importance of identifying the patient's substance use risk, but the problem perceived as lack of competence. The aim of this project was to identify nurses' competence in substance abusing patient care and qualify nurses' basic and special competence in substance abusing patient care in Medicine department of Turku University Hospital.

#### Purpose/Methods

Development project's empirical part was conducted by an three-phased application of Delphi method. At the first phase interviewed the substance abusing patient care specialists (n=9), the second phase's internet-based Webropol® survey included all nurses, assistant head nurses and head nurses of Medicine department (n=70). The third phase conducted as discussion of expert panel (n=9). Delphi's first and third phases' data were analyzed by using qualitative methods, and the second phase's data was analyzed by using statistical methods.

#### Results

As a result identified nurses' competence and qualified basic and special competence in substance abusing patient care in the Medicine department. Based on identification and qualification formed a competence map. Description of nurses competence in substance abusing patient care bases on that competence map. Based on description formed an development plan to develop nurses' competence and the quality of substance abusing patient care in the Medicine department of Turku University Hospital.

#### Conclusions

As a conclusion nurses' needs support and further education to promote alcohol abuse interventions as a part of holistic patient care and to promote the availability of professional counselling and therapy to decrease alcohol abuse. They also need strengthen their own competency in addressing patients' alcohol abuse concerns. The development plan is planned to be a practical tool for implementing evidence based practices to support nurses in developing alcohol abusing patients care.

#### Comments

This development project was a part of Hoi-Pro The Future Hospital – Nursing development project 2009-2015, which is a part of Turku University of Applied Sciences` and Hospital District of Southwest Finland`s T-hospitals development project (T-Proproject).

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The Health of Aboriginal Adolescent:
Decrease the Causes of Drinking
Behaviors Through Increasing
Interpersonal Communication and
Cultural Network

### HSIEH Hung-Yu, SU Yu-Mei, CAI Wen-Xuan, LEE Yu-Chuan

#### Introduction

In Wulai District, where contains the largest indigenous population of the New Taipei City. The most common health problem of this population is liver disease, and the cause of this



situation may directly relate to the fact that 30.6% of them have drinking habit. In addition, according to our research, 80% of the drinking population is adolescent. It shows that in order to reduce the alcohol drinking in this community, educating adolescents is an important and necessarily step.

#### Purpose/Methods

Our plan is to decrease the causes of drinking behaviors through increasing interpersonal communication and cultural network. Several strategies are used in this study. 1. Develop Personal Skills: conducting health-education classes. 2. Strengthen Community Actions: involving the local adolescents to be the planners of the community activities, and hiring local volunteers to complete the programs. 3. Create Supportive Environments; encouraging community stores to not selling alcohol to people under legal age and exhort adults to decline purchasing of alcohol.

#### Results

We have conducted 11 speeches and campaigns in the community since the project started, the main goal is to provide students with capacities to reject alcohol usage. Additionally, there are 15 local individuals have joined the group of health-care volunteers, their responsibilities are assisting activities conduction and family visiting. So far, there are 5 local stores have agreed to post a sigh that shows reducing alcohol drinking and not selling tobacco and liquor to adolescents.

#### **Conclusions**

Several strategies are used to help people reduce drinking in the community. First of all, we encouraged local individuals to become group leader and volunteers, empowered them to act as advocators to educate people the benefits of decreasing drinking. Secondly, throughout some traditional activities, workers introduced the topics of health education, and enlightened the connections between traditional values and updated health perspectives. Till the end of 2013, there are two adults have successfully quitted alcohol drinking.

#### Comments

Because of the different historical and cultural backgrounds, indigenous population usually shares unique social and health perspectives. In order to change their ever fixed life style, it is necessarily to obtain a way to communicate with this community's characteristics. The study proves that throughout understanding and respecting indigenous people's tradition, stepping into their life environment, and empowering the locals, are the most fruitful ways to help them to pay attention on issues of health improvement.

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The association between betel nut chewing and metabolic syndrome in an aboriginal population in Taiwan

#### TSAO Yu-Chung, LIN Shih-Chieh, LING Tiing-Soon, CHEN Jau-Yuan, LIU Pin-Sung, CHIU Yueh-Hsia

#### Introduction

Taiwan is an island country with 48 out of 309 counties located in the mountainous area or outlying island. We started to provide medical services in three isolated aboriginal villages in Fu-Hsing Township since 2002. We found that the prevalence of metabolic syndrome, according to the revised NCEP/ATPIII criteria, was higher than urban Taiwanese in all age groups. We would like to know the possible contributing factors related to metabolic syndrome of aboriginal groups.

#### Purpose/Methods

In this prospective cross-sectional study, participants were 663 aboriginal residents (total residents at the time were 2309). We distributed questionnaires that included basic information about personal history, occupation, substance use, and exercise habits. We also arranged free health checks that included basic laboratory data in Feb 2012. The prevalence rate of metabolic syndrome were calculated. Univariate and multivariate analyses were conducted to examine whether and to what extent the variables affected the presence of metabolic syndrome.

#### Results

The prevalence of metabolic syndrome, according to the revised NCEP/ATPIII criteria, was 29.9%, with 28.3% in male and 31.2% in female, which is higher than urban Taiwanese in all age groups. Univariate and multivariate analyses showed that the model was significant in female gender (p=0.027), older age (p=0.020 in age 40-54, p<0.001 in age 55-64 and p<0.001 in age over 65), betel nut chewing (p=0.012) and the level of uric acid (p<0.001).

#### Conclusions

According to previous studies, metabolic syndrome was related to gender, age, substance usage such as smoking and alcohol drinking. However, the relationship between betel nut chewing and metabolic syndrome was not well documented. Since we found out the trend that betel nut chewing is highly related to metabolic syndrome in the model we built, taking actions for quitting betel nut chewing in this aboriginal population is as important as other health promoting programs.

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Session O1.5: Improving salutogenic workplaces in healthcare I

How to make employees the protagonists of their own health: a successful outcome for a pilot project based on the salutogenic approach as a way to promote health

### COLIN Christine, PIARD Jean Romuald, RAFFELINI Chiara

#### Introduction

To promote a healthy workplace, the CHU Sainte-Justine in Montreal created a pilot project for an Employee Wellness Program (EWP) based on the salutogenic approach as a way to promote staff health. The salutogenic approach recognizes that individuals can take responsibility for their health, provided that their environment allows them to act autonomously (Bauer and Jenny, 2013). The CHU Sainte-Justine therefore decided to get employees directly involved in this program by making them responsible for designing a health promotion program specifically for them and by giving them an autonomous role in the process. The principle of employees' co-responsibility for their own health is the basis for this project.

#### Purpose/Methods

The goal of the EWP project is to implement a health promotion program for employees by getting them involved at the start of the planning process. To achieve this goal, a multi-variate methodology was implemented: a self-evaluation questionnaire on employees' health conditions and lifestyles was administered in three different professional sectors; the physical condition of these employees was assessed; and focus groups were held to validate the initiatives that will be implemented based on the collected data.

#### Results

The collected data have confirmed the need to act on specific priorities of employee health: a first component includes increased physical activity, improved food choices, and smoking cessation, while a second component will involve improved mental health and quality of sleep. Based on these priorities, a proposal for tailored initiatives was developed and validated by employees. The effectiveness and success rate of these initiatives will be evaluated after they are implemented.

#### Conclusions

First of all, this pilot project allowed CHU Sainte-Justine employees to become aware of their health condition by giving them more responsibility over their own well-being. Secondly, the fact that they were involved in choosing these initiatives means that they will participate in a more significant and engaged way. This should guarantee an improvement not only in their health but also in their work environment, which will be rendered more salutogenic.

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Health-related behaviour among managers of Slovenian hospitals and institutes of public health

#### FARKAS Jerneja, LAINSCAK Mitja, KUKEC Andreja, KOSNIK Mitja

#### Introduction

Behavioural risk factors are associated with health. In Slovenia, scarce information about health-related behaviour and health among healthcare institution managers is available. We aimed to evaluate health-related lifestyle, health status, and use of health services among managers of Slovenian hospitals and institutes of public health.

#### Purpose/Methods

This was a cross-sectional survey, which included directors, scientific directors, and their deputies. Data was obtained with posted self-administered questionnaire.

#### Results

Overall response rate was 77,6 % and we included 63 subjects (51,3  $\pm$  7,5 years, 57,0 % women). Most subjects completed university study (92,1 %), lived in urban area (52,4 %), were married (73,0 %) and holding a director position (34,9 %). More than half were owerweight or obese (52,3 %), were not meeting the physical activity target (58,7 %), and were exposed to stress at work (87,2 %). Hypercholesterolemia (36,5 %), spinal disease (17,5 %), and arterial hypertension were most common chronic diseases (15,9 %). Whilst only few visited their general practitioner due their health complaints, blood pressure (76,2 %), cholesterol (50,8 %), and glucose (54,0 %) were measured within last year in most of the subjects.

#### Conclusions

Smoking and known disease was rare but more than half of subjects were overweight/obese and were not sufficiently physically active. Workplace related stress was most common risk factor thus preventive strategies should be focusing on stress management.

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Promoting well-being and team commitment among intensive care unit nurses



## GALLETTA Maura, PORTOGHESE Igor, PIAZZA Francesca, LAI Alberto, CAMPAGNA Marcello

#### Introduction

Intensive care units (ICUs) are challenging work environments because of the critical condition of patients, and ICU nurses frequently lament low job satisfaction and high staff turnover. Nevertheless, organizational and work characteristics, and the quality of relationships with staff can help to maintain nurses' enthusiasm and increase job satisfaction. This might depend on both organizational and work characteristics, as well as on daily work relationships which can contribute to the quality of working life

#### Purpose/Methods

The aim of the study was to analyze how nursing work environment factors affect identification and commitment among ICU nurses. A cross-sectional study was carried out in 12 ICUs from four Italian urban hospitals. A total of 222 nurses completed a self-reported questionnaire in order to understand factors related to organizational well-being. The relationships between variables were examined via hierarchical regression analyses, via PASW Statistics 18.0, and mediation effects were examined using the joint significance test (JST).

#### Results

The results showed that nursing work characteristics (job autonomy, nurse-physician collaboration, and quality of practice) were directly and positively related to team commitment (p < .01), (R2 = .19, F = 14.13, p < .001), and that the nursing work characteristics—team commitment relationship was mediated by both perceived supervisor support and job satisfaction (R2 = .30, F = 17.01, p < .001). The mediation coefficient resulted significant with a notable increment in explained variance ( $\Delta$ R2 = 12%, p < .001).

#### **Conclusions**

The results show that having good relationship with physicians, high job control, as well as high perceived quality of practice, affects identification with work group and with its objectives. Furthermore, this study shows that feelings of attachment are stimulated by a good climate for clinical practice and by a work environment which promotes job satisfaction and supports employees. Our findings may concretely contribute to literature and offer additional suggestions to improve nurses' work conditions and patient health in ICUs.

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### Standardising "Health and Wellbeing" quality standards in Ireland to

### support a national salutogenic culture within healthcare organisations

#### **MOLLOY Laura, ELDIN Nazih**

#### Introduction

In Ireland the Health Information and Quality Authority (HIQA) set and monitor compliance with standards for the quality and safety of healthcare (National Standards for Safer, Better Healthcare). The Irish Network of Health Promoting Health Services (IHPHS) identified the need to standardise how "Health and Wellbeing" is understood in the standards and how this translates into health promotion activities. To meet these needs, IHPHS have developed a guidance document for healthcare organisations (called) 'Standards to Practice' which has an overall aim of helping to develop a more salutogenic culture within health services.

#### Purpose/Methods

The purpose of the guidance document is to: 

Support hospitals to gather information and evidence to verify their assessments against the "National Standards for Safer Better Healthcare". 

Support hospitals to gather information and evidence to verify their assessments against the WHO Standards for Health Promotion in Hospitals. 

Support Health Promotion Coordinators in hospitals and/or standards assessment teams in carrying out the assessments. 

Demonstrate the interlinking of the WHO HPH and the HIQA standards. 

Illustrate comprehensive examples of evidence of health promotion activities in acute hospitals. 

Reorient the health services to develop a more

#### Results

salutogenic culture.

The guidance document was developed in consultation with specialist health promotion staff for various topics and settings and specialist quality and safety staff and was informed by HPH standards, National Policies and practitioners. It expands on standards relevant to "Health and Wellbeing" by illustrating levels of quality with examples of evidence under specific headings. These will be explained in more detail in the presentation.

#### Conclusions

This guidance document will guide Health Promotion Coordinators to assess progress in relation to the National Standards for Safer, Better Healthcare as well as the HPH standards. Thus helping to reorient the Irish Health Services to develop a more salutogenic culture.

#### Comments

This guidance document has been very well received by the acute sector of the Irish Health Services and plans are under way to develop similar documents for primary care services. We are not aware of similar work being conducted elsewhere and as such feel this innovative approach to including health and wellbeing in monitored healthcare standards would be of interest to HPH colleagues internationally.

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### Health inspirers contributes to salutogenic workplaces

#### SJÖQUIST ANDERSSON Lena, EDSTRÖM Cecilia

#### Introduction

The vision for Västerbotten County Council is to have "The world's highest quality of health and healthiest population by 2020". The County Council has 9 700 employees working in three hospitals, 35 primary health care units, dental health care and habilitation. In order to engage and address the employees in the efforts to reach the vision, a system with health inspirers have been developed. A health inspirer can together with the manager work with health promotion activities at the workplace.

#### Purpose/Methods

Each workplace in the county council has the opportunity to select a health inspirer who can represent the workplace and also has a responsibility to support the manager and the colleagues in the health promotion work. The assignment is to inspire, inform and arrange activities that contribute to a healthy and salutogenic workplace. The strategic public health unit offers regularly educations and support to the health inspirers.

#### Results

The system for education and support consists of tree different courses. All new health inspirers attend an introduction where basic theories of salutogeneses and health promotion are presented. The role of the health inspirers and tools in the work are also on the agenda. Twice a year there are inspiration days with different topics. A concept of seven themes connecting health promotion and sustainable development is used. In collaboration with a local Folk High School a wellness course is offered.

#### Conclusions

There are about 300 health inspires in the county council and the number is steadily increasing. The health inspirers are active in the health promotion work in their own workplaces. As empowerment is central in supporting the health inspires, exchange experience is one method to chare and spread good examples of work. A variety of activities are arranged in order to support physical, psychological and social health at the workplaces.

#### **Comments**

Health inspires are good ambassadors for the county councils efforts to communicate the vision to others, for example patients and relatives that visit the hospitals. They are also a good support to the managers for the different units in the health promotion work and can contribute to the development of healthy and salutogenic workplaces.

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### Session O1.6: Symposium: Integrated Interventions in Clinical Health Promotion – The way to go?

Integrated Interventions in Clinical Health Promotion – The way to go?

#### KALVACHOVA Milena, SVANE Jeff Kirk

#### Introduction

WHO HPH Recognition Project: Program for Symposium: International Project Update /JK Svane (WHO CC) Intervention Group Experiences Czech Republic /Milena Kalvachova (CZ) Taiwan /Shu-Ti Chiou (TW) Malaysia / Yen Ang (MY) VIP Project /Karen Hovhannisyan (SE) The SOS Project /Helene Ekfors (SE) Discussion /All Further perspectives About the symposium This symposium will focus on integrated and multi-faceted interventions and approaches to health promotion in hospitals and health services and how to manage them, improve them and recognize performance. The concrete topics of the presentations include: - The current international multi-centre study evaluating a WHO-HPH recognition process for health promotion with examples from countries where intervention group departments have successfully completed the process start to finish. - The current Swedish project on Very Integrated Pathways (VIP), which brings together multi-risk-factor screening and GSP. - The current Swedish project on patient and staff preferences in relation to lifestyle and risk factor advice in a clinical setting (SOS). The symposium will deal with all issues relevant to the topic, bringing up good examples, and thus it will address the issues relating to both scientific projects in this field and to real-life implementation of integrated interventions. The projects are very diverse in scope and focus, and during the presentations the scientific background and the study design of each will be presented, so the topic will be dealt with from a variety of perspectives and angles. The symposium will conclude with a more general discussion among the participants and speakers of further perspectives, possibilities and challenges.

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### International Project Update: The WHO HPH Recognition Process

### SVANE Jeff Kirk, TØNNESEN Hanne, CHIOU Shu-Ti

#### Introduction

Although HP has significant effects on treatment and patient safety and is core part of quality in hospitals, explicit recognition of it is still a new area. Working from platform created by previous HPH projects, such as HPH DATA and HPH Doc Act, this project is an ongoing multi-centre RCT looking to uncover knowledge about assessment of HP performance and about whether or not such a process would in turn also bring about health gains for patients and staff.

#### Purpose/Methods

A multi-centre RCT aiming for 2 x 44 included departments from HPH member hospitals. 40 of these departments are included from 8 countries. The included departments are allocated to intervention or control group. The IG starts process immediately, and the CG continues usual clinical routine. After a one-year delay, the CG commences the process too. Data is collected using validated WHO HPH tools and standards as well as other validated tools. An on-site audit completes the process for each department.

#### Results

Almost half the needed departments have been included. 3 departments have successfully completed the process start to finish. In late 2014 it will be approx. 17. Results will show whether the process generates significantly better performance and significantly better health gain for patients and staff - measured by number of HP activities delivered (HPH DATA Model, HPH Doc Act Model, medical record audits and organizational data forms using WHO HPH Standards), and health surveys (incl. SF36v2) for patients and staff.

#### Conclusions

Studies on recognition of HP are rare, so there is a need for highlevel evidence (RCTs). The Recognition Project will bring about useful and novel insights into the effect of HP performance assessment and the potential health gains related to such a process.

#### Comments

Abstract is for symposium entitled: "Integrated Interventions in Clinical Health Promotion – The way to go?"

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# Our first experience with health promotion – experience of the municipal hospital

#### LIBERDA Martin, STANECKA Zbynek, ZAJICEK Petr, CERNOCHOVA Marie, HOLUBOVA Lucia, KOSOVA Helena, SUPSAKOVA Petra

#### Introduction

Our local municipal hospital – Valasske Mezirici Hospital (289 beds) has recently joined the international network of Health Promoting Hospitals (HPH). We wanted actively participate in WHO-HPH Research Project:Recognition Process and were randomly included in the intervention group.

#### Purpose/Methods

Health promotion during our first 2 years of HPH-network membership was aimed at smoking cessation policy, weight reduction programme and promotion of healthy lifestyle both in community and employees.

#### Results

Our first experience with commencement of above mentioned programmes in our hospital. Center of weight reduction and preventive medicine and smoking cessation outpatient clinic started to work for our community and for employees. HPH programme and its visions were implemented into our hospital policy. Our HPactivities include also Day of Health when we attend and provide our community with presentations on HP and Day Of Opened Doors where the hospital is opened for public. Our activities for emploees are both educational and active sports (triathlon, swimming, ice-skating, Sport games)

#### Conclusions

Our first experience with health promotion increased awareness of healthy lifestyle of both the public and our employees. The membership of Valasske Mezirici Hospital in HPH network facilitated the commencement of anti-smoking programme in our hospital and helped to intensify our weight-reduction programme. We have a very useful feedback now where our starting line has been set up and thanks to Recognition Project we have also another framework ideas on our future development (e.g. participation in "Towards Pain-free Hospital" project).

#### Comments

Belongs to symposium "Integrated Interventions in Clinical Health Promotion – The way to go?"

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### Wellness program for patients with mental illness.

#### PETR Tomas, GUTOVÁ Lenka

#### Introduction

People with enduring mental health problems are more likely determined to develop of physical health problems than the general population. Conversely, poor physical health can have a negative effect on mental health. These challenges have a huge impact on the length and quality of people's lives and lead to enormous costs for society. It is proven, that people with severe mental illnesses have a two to threefold increased risk of death compared to persons of the same age and sex in the general population. They die on average 20 years younger than the general population. The leading cause of excess mortality is cardiovascular disease. People with severe mental illnesses are 2 to 3 times more likely determined to develop diabetes and other cardiovascular risk factors. Only one-third have normal weight.

#### Purpose/Methods

The poster will show the most common risk factors leading to poor physical health of people with mental illness and describe the Wellness program provided in Central Military Hospital – Military Teaching Hospital in Prague, Czech Republic. This program is delivered by trained psychiatric nurses in consecutive groups consisting of 5-8 participants or individually. Sessions include observing weight changes, BMI and blood tests, education about healthy eating habits and exercise, feedback from participants and completion of tests about nutrition and exercise.

#### Results

Our first outcomes show, that patients with mental illness improved their knowledge about healthy life-style and keep or lost their weight as a result of participation. Some of them have changed their bad eatings habit and reduced number of cigarettes.

#### Conclusions

The wellness program is focused on health promotion especially on weight control, physical activity, smoking cessation and healthy food. The program is individualized and respects special needs and abilities of people with mental illness.

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Initial Experience of Implementing
HPH Recognition Project Example
from the Department of Orthopedics

#### Surgery, National Taiwan University Hospital Hsin-Chu Branch

### CHEN Meng Kan, LAI Ho Hsien, WU Tuoh, WU Chia Fang

#### Introduction

The International Network proposed the WHO-HPH Recognition project in 2011, utilizing the WHO-HPH tools and standards to improve the quality of clinical health promotion and assess performance. Taiwan was one of the recruited members of this project, with 21 hospitals (9 of Intervention Group and 12 in Control Group) coordinated by the Health Promotion Administration. We will share and discuss our experiences as one of the Intervention group, the Taiwan National Taiwan University Hsin-Chu Branch.

#### Purpose/Methods

We have completed the baseline package collection in March of 2013 and started the implementation of quality plan, scheduled to complete in April of 2014; data were collected based on The Organizational Data Form, Patient Survey, and Staff Survey; with the assistance from the HPA, the baseline results were used to devise a Quality Plan that corresponds to our hospital's needs, which included medical records that documents health promotion information and strategies to implement clinical health promotion and services.

#### Results

Issues encountered during baseline package collection included IRB review, data upload and implementation process; we noted that "cross-departmental communication" was the key to the implementation of quality plan. IRB review was resolved by providing guidance and supplement information corresponding to the requirements of different hospitals; data upload was resolved by simplified data coding procedure; implementation procedure was resolved through a clear response, guidance and Q&A mechanism; cross-departmental communication was achieved through consensus between project staff and colleagues of collaborating departments.

#### Conclusions

We developed a patient health promotion assessment form to improve medical record; we provide subject patients with intervention services such as smoking cessation, weight management, health education and referral services; clinical health promotion and intervention were achieved through outpatient and inpatient channels; employee health promotion is promoted through each hospital units. Our experiences showed that HPH recognition is achievable, and that better health promotion performance can be obtained through systematic integration of participating departments and adequate incentives from competent authorities.

#### Comments

Symposium "International Project Update: The WHO HPH Recognition Process"

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#### Promoting health among Hospital Employees--the WAW way

#### ANG Yen, CH'NG Keat-Hui, LEE Hui-Hui, CHUN Teik-Lan, RADZALI Catrina-Lynn, CHAN Wai-See

#### Introduction

Many hospital employees are found to be unhealthy: they work shift and long hours; in caring for the sick, their own health—physically or emotionally takes a toll. There is very little information about the health status of hospital employees. Promoting health among this group of employees is important, but lacking. Very few hospitals are engaged in promoting health among its employees. In Malaysia, information on workplace health promotion in general is scarce, and hospital employee wellness program is unheard of.

#### Purpose/Methods

A recent health survey conducted in Penang Adventist Hospital among its 1100 employees reveal that many of its employees practice unhealthy eating habits, are sedentary, and live with many chronic diseases such as obesity, hyper-lipidemia and stress. The Lifestyle Center in collaboration with the hospital staff clinic undertakes the leadership to create a healthy workplace culture for its employees. A comprehensive employee wellness strategic plan was established. It is decided in its first year of intervention to focus on the most prevalent chronic disease, namely obesity.

#### Results

A structured 10-week weight loss program, Weight-A-Way (WAW) was conducted for the obese employees. A number of WAW services were made available to all employees: a WAW corner was set up in the cafeteria selling healthy food; a special line of baked products-- the WAW bread was created and sold at the hospital bakery; weekly WAW fitness classes were offered; WAW passports were given to employees to keep track of their WAW activities. Specific WAW goals were given to participants to lose weight, exercise and eat healthily. WAW buttons were made and given to all employees to wear on their uniform.

#### Conclusions

A WAW buzz was being created across the campus of the hospital among its employees. A rap was even created and sang at the hospital Quarterly Employee Meeting to help create a lasting impact on the employees. As a result, many employees have become more aware of the health consequence of obesity, learnt to choose healthier food choices, and to increase physical activity. Employees are encouraged to live healthily the WAW way!

#### Comments

This is the first comprehensive workplace health promotion ever known to be conducted for hospital employees in Malaysia. The name WAW is chosen aptly to reflect the focus of our health promotion, namely, combating obesity. It is hope that through the series of innovative and fun WAW activities, we can create a healthier work environment for all the employees. WAW is so catchy that it has even caught on with doctors and patients. Symposium "Integrated Interventions in Clinical Health Promotion – The way to go?"

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#### VIP (Very Important Patient) project: Health Promotion for Alcohol and Drug Abusers

#### HOVHANNISYAN Karen, SKAGERT E., THORNQVIST K., WIKSTRÖM MM, TØNNESEN H

#### Introduction

Drug and alcohol addiction often accompanied by other risk factors such as heavy smoking, poor nutrition and physical inactivity. In addition, co-morbidity may also be increased compared to the background population. A comprehensive cross-section Health Promotion could have a major potential for better outcomes for these patients.

#### Purpose/Methods

Purpose: The aim is to identify the presence of comorbidity and lifestyle risk factors, and to evaluate the effect of adding the VIP program to usual alcohol and drug treatment. Methods: VIP project consists of VIP Screening and VIP RCT. VIP Screening: 400 adult men and women with alcohol and drug dependency are screened. Lifestyle factors, comorbidity, socioeconomic factors recorded and analysed. VIP RCT: 2 x 120 patients included after screening, if they have at least one health determinant (HD) and at least one co-morbidity. Primary outcomes are compliance to addiction treatment and alcohol or drug-free days. Secondary outcomes are health status, health-related quality of life, harm reduction, use of health services, time to return to work (or similar activity). Patients randomized to control group with conventional treatment or intervention group with 6 weeks VIP program. Both groups followed up for two years.

#### Results

VIP Screening: 322 patients were screened, age 51 years (range 23-79), 67 % man and 33 % woman. 71% were alcohol dependent, 53% drug dependent and 25% both. The 93% had at least one HD, 54% had two and 22% had three HD. 75% were smokers (17% also snuff), 59% had overweight and 35% were physically inactive. 70% of the screened had at least one comobidity and 25% had two or more. 41% had heart disease, 25%

respiratory disease, 26% liver disease and 7% had diabetes. VIP RCTs: 213 patients (66%) was subsequently included in the RCT, which is ongoing. Data is not yet analysed.

#### **Conclusions**

The preliminary conclusion is that there seems to be a major need for additional health promotion activities among substance abusers.

#### Comments

Symposium "Integrated Interventions in Clinical Health Promotion – The way to go?"

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#### Health Care Promoting Attitudes in the Health Care System: the Patient Perspective

#### TØNNESEN Hanne, RAFFING Rie

#### Introduction

The patient perspective is an important aspect of health promoting guidance. To facilitate healthy lifestyle changes, it is pivotal to ask patients about experiences as well as preferences concerning the approach to guidance and previous experiences with health promoting guidance. Furthermore, what patients consider a fruitful approach.

#### Purpose/Methods

Purpose: To survey patient views and preferences concerning health promoting guidance, facilitative and repressive factors in guidance. Method: A questionnaire on life style, and experiences and attitudes to health guidance using structured interviews in focus-groups and individually. Data will be analyzed using logistic regression analysis and qualitative content analysis.

#### Results

We hope to generate knowledge of patient needs and expectations concerning health promoting guidance. The study aims to elucidate life styles, experiences and attitudes among patients receiving health guidance.

#### **Conclusions**

Unhealthy lifestyles contribute substantially to the profound burden of illness in the world. Description of health promoting guidance from a patient viewpoint will enable guideline development and improvement on a national level.

#### Comments

Results are currently under analysis Symposium: Integrated Interventions in Clinical Health Promotion - The way to go?

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# Health Care Promoting Attitudes in the Health Care System: The Professional Perspective

#### TØNNESEN Hanne, RAFFING Rie

#### Introduction

Since 2011, there are Swedish guidelines concerning unhealthy lifestyle, and which interventions health care personnel should offer patients at risk of illness related to lifestyle. The study aims to describe successful health care promotion interventions. The study will shed light on the experiences, needs and expectations of personnel in regard to health promoting guidance. Furthermore, the study aims to explore similarities and differences in personnel and patient expectations.

#### Purpose/Methods

Purpose: to describe personnel's attitudes to health promoting guidance and explore if there is a common ground between patients and personnell. Methods: Qualitative design with structured interviews in focus-groups and individually. Data will be analyzed using qualitative content analysis.

#### Results

Data analysis is ongoing. The study will shed light on the experiences, needs and expectations of personnel in regard to health promoting guidance. The study will also reveal whether there is a common ground between patients and personnel for building a foundation for successful health promoting.

#### Conclusions

Unhealthy lifestyles contribute substantially to the profound burden of illness in the world. Description of health promoting guidance from a personnell viewpoint will enable guideline development and improvement on a national level.

#### Comments

Results are currently under analysis Symposium: Integrated Interventions in Clinical Health Promotion - The way to go?

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#### Session O1.7: IHF Symposium: Institutionalization of Health Promoting Practices



### Health Promotion Activities Within US Hospitals

#### **DOLAN Thomas C.**

#### Introduction

An older, more diverse population, with high rates of chronic illness will require a level of care that the U.S. is not currently equipped to handle using traditional models of care. U.S. hospitals are addressing this growing need for care through new and innovative approaches to care delivery through a variety of health promotion activities.

#### Purpose/Methods

Some examples of health promotion activity within U.S. hospitals include: collaboration with community organizations to connect residents with wellness and fitness opportunities, education and classes on lifestyle changes, improving comprehensive care plans at discharge, leveraging technology to remotely monitor at risk patients, involvement in state-wide initiatives and creating care setting environments that promote healing and health.

#### Conclusions

The growing evidence of the effectiveness of health promotion by hospitals will help expand the infrastructure needed to support these efforts, ensuring a platform to sustain and continue improving current health promotion efforts.

#### Comments

Title of the session: Institutionalization of Health Promoting Practices

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#### **Health Promotion in Brazil**

#### **BALESTRIN Francisco R.**

#### Introduction

This presentation will show different strategies concerning Health Promotion in Brazil, such as National policies and efforts conducted by the Ministry of Health, as well as the experience of leading hospitals that participate at the Brazilian Private Hospital Association. HPH standards and their applicability to Brazilian reality and the major challenges to reach them will also be presented.

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### Institutionalization of Health Promoting Practices in Nigeria

#### **BALOGUN Ahmid**

#### Introduction

In a developing country, infrastructural decay, decades of neglect, poor planning, poverty and illiteracy have made health in all policies a daunting task. Educating a largely illiterate society calls for local ingenuity. Campaign signage, Radio/TV messages, pamphlets, etc should have local symbols and languages content. Messages would get to individuals on their roles i.e. diet, lifestyle etc.

#### Purpose/Methods

The governments, in partnership with NGOs, private businesses, industrialists etc should help with affordable housing, potable water, electricity, food security, transportation, affordable health care, poverty eradication etc. Law enforcement agencies must also live up to their responsibilities, and eschew sharp practices.

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#### The Catalan Health System and the Institutionalization of Health Promoting Practices

#### **RIERA-DOMÈNECH Anna**

#### Introduction

The Catalan health system is publicly financed, with universal coverage and a mixed system of providers (primary care, acute care, long term care and mental health services), both public and private. Their relationship with health authorities is through a contract of services, including specific requirements for health promotion goals in each territory.

#### Results

Primary care and community mental health services, with closer contact with community, have a key role in health promotion. Health authority establishes specific health promotion goals in the 5-year Health Plan. Goals defined in each provider's contract and fully monitored are made accountable with transparency to all Catalan citizens.

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#### Health Promoting Practices in Australia

#### **POWER Prue**

#### Introduction

Australia has enjoyed a form of Universal Health Coverage continuously since 1984 through Medicare, a tax-funded public insurance program that covers medical services as well as public hospital care and subsidised prescription drugs. Reforms over the last five years established a new management structure for public hospitals around local area networks, introduced performance reporting, strengthened primary care and introduced a national health promotion agenda.

#### Purpose/Methods

With the election of a conservative government in September 2013, these reforms and the underlying structure of Medicare are under threat. My paper will outline the challenges of unrelenting policy change for public hospitals and health services in delivering the full range of services.

#### Results

Not applicable

#### Conclusions

Not applicable

#### Comments

Title of the session: Institutionalization of Health Promoting Practices

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### Session O1.8: Symposium: Healthcare and healthy aging

### Symposium on Health Care and Healthy Aging

#### **CHIOU Shu-Ti**

#### Introduction

The world's population of persons aged 60 and over is expected to reach 2 billion by 2050. Older persons have higher needs of healthcare utilization.

#### Purpose/Methods

The Health Promoting Hospitals (HPH) incorporates the concepts, values and principles of health promotion into the culture and daily operations of hospitals.

#### Results

Health promotion, disease management and patient safety interventions delivered in and by hospitals have been shown to improve older persons' health outcomes.

#### Conclusions

The session will showcase strategies, projects and best practices of age-friendly heath care from different countries.

#### Comments

This is the session abstract for the Symposium on Health Care and Healthy Aging (90 minutes), scheduled to take place during the parallel sessions period during the HPH 2014. Please combine the full texts from each field into a single document.

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# Session O2.1: Enhancing care for chronic patients with health promotion

Did health promoting hospitals perform better upon quality of diabetes care?- A national comparative study in Taiwan

### CHIOU Shu-Ti, CHAN Chia-Hua, LIN Chien-Yu, CHEN Tzu-Ling, MAO Chen-Chi

#### Introduction

Taiwan HPH Network was established in 2006 and has grown to have more than 100 members by 2013. Development of clinical pathways with integration of health promotion for patients with major non-communicable diseases has been one of its priority action areas for members. This study compared hospital performance upon quality of diabetes care between HPHs and non-HPHs.

#### Purpose/Methods

We compared all the 112 HPH members (including 13 medical centers, 55 regional hospitals and 44 community hospitals) with 76 non-HPHs (including all the non-HPH medical centers and regional hospitals, and 44 randomly-selected non-HPH community hospitals). Hospital data were retrieved from the 2012 National Health Insurance Public Disclosure Data on Diabetes Care. Quality measures included patient enrollment rate in pay-for-performance (P4P) scheme and rates of A1C testing, fasting lipid profiling, eye fundus examination and microalbuminuria testing.

#### Results

HPHs had higher average performance on P4P enrollment rate, A1C testing, fasting lipid profiling, eye fundus examination and microalbuminuria testing than non-HPHs. When stratified by levels of accreditation, the differences were remarkable and all reached statistical significance in community hospitals; less remarkable and only P4P enrollment rate reached statistical significance in regional hospitals. In medical centers, P4P enrollment rate and rates of fundal examination and microalbuminuria testing were higher in non-HPHs, though none reached statistical significance.

#### Conclusions

This cross-sectional comparison found being an HPH member was associated with better performance on diabetes care, especially for community hospitals, but not for medical centers, where diabetes care tended to be provided by specialists. Further studies need to examine the association between becoming an HPH member and the change of quality performance.

#### Comments

The HPH model can be applied to improve quality performance on chronic disease management. However, evidence from large scale evaluation of its effectiveness was limited. This cross-sectional national study on 188 hospitals provided evidence on association between HPH and better diabetes care, at least among community hospitals where the care usually could not be provided by diabetologists.

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### Parents improve healthcare for children with diabetes

### SEVERIN LARSSON Maria, GUSTAVSSON Susanne

#### Introduction

Traditionally, healthcare professionals improve patient processes without participation from patients and their relatives. Sometimes patients get involved by completing a survey, but usually the questions are constructed, analyzed, and improvements prioritized by staff. What would happen if patients / relatives were invited to participate in the improvement process along with staff? Could this contribute to different sustainable improvements in healthcare? This project was conducted in a hospital with staff and parents to children with diabetes.

#### Purpose/Methods

The purpose is to study experiences from an improvement project involving parents collaborating with staff. The research approach was participatory action research. In the improvement project, a model called experience-based co-design EBCD was used. The steps in the EBCD model are: • Catch the experience from healthcare professionals and relatives (interviews) •

Understand the experience together (focus groups) •
Improve the patient process collaboratively to achieve better experiences (improvement teams) • Evaluate the improvements in collaboration (group meeting)

#### Results

Healthcare professionals and parents each had different experiences from the patient process. The parents identified 24 improvement areas and the staff 16. Of these improvement areas, only 6 were common. In collaboration, they chose to work with seven improvement areas. For example, they worked with a checklist that contains skills required for nurses taking care of children with diabetes in the ward. They also started a local patient association for children with diabetes and their families which empowered them.

#### Conclusions

Healthcare professionals and patients have different perspectives of the patient process relative to their experiences. Patients and their families have important information that healthcare

professionals do not think of. Many of the improvements were of simple nature but still important for the experience of the patient process. There were also complicated problems resolved that had a positive effect on patient safety. Both perspectives from healthcare professionals and relatives are paramount to achieve a holistic view of the patient process.

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### Chronic Patients Journey in Spain. A qualitative study

### ARRIGHI Emilia, NAVARRO RUBIO Maria Dolors, JOVELL Albert

#### Introduction

Evidence shows that chronic disease patients can improve health outcomes and have a better quality of life taking a more active role in self-management. Currently, the health care system is changing towards a new model of patient more involved in the decision-making process. Chronic diseases are projected to be the leading causes of death and disability in 2030, therefore, when approaching long term care, it is necessary to consider the study of Health Literacy as a core element of self-care.

#### Purpose/Methods

The goal of the study was to identify chronic patients' needs in health care in terms of: the health care system knowledge, self-managemt skills, information gathering, patient-professional communication skills and decision-making participation. Qualitative techniques were used, including 10 semi-structured interviews with experts (health professionals and leaders of patients' organizations). Moreover, 2 focus groups were organized with the participation of chronic patients. Information was organized using content analysis.

#### Results

Participants have shown general knowledge about the health care system, but there were some difficulties in navigating hospitals and locating services they need. Both, professionals and patients, agreed about the fragmentation of the information regarding care, and the difficulty to have a vision of the care process as a whole. Patients were seeking to receive practice self-management skills, more tailored to their needs. Participants believed information materials must be simplified and professional's communication skills improved in order to achieve empathy.

#### Conclusions

It is necessary to develop more research on chronic patient's needs, especially to identify how to improve self-management and to develop more effective strategies for self-care and patients' compliance. The study of health literacy should be oriented to identify vulnerable populations (the elderly, young

people and people with disabilities) in order to design specific strategies and programs.

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Effectiveness of a lifestyle counseling intervention on the abdominal obesity and cardiovascular disease risk factors: 3-month results of a randomized clinical trial

### PARK Jiyeon, KIM Hyekyeong, KIM Sungdae, CHO Han-ik

#### Introduction

Abdominal obesity leads to serious consequences for health. Abdominal fat distribution is a major risk factor for cardiovascular disease and type 2 diabetes. It is important, therefore, to recognize and improve abdominal obesity. Abdominal obesity is caused by the complex set of factors within personal control (e.g. overeating and lack of exercise). Thus, MEDICHECK health promotion centers have provided intervention program, such as changing the lifestyle of the individual.

#### Purpose/Methods

To evaluate the effectiveness of a 3-month trial of lifestyle intervention in decreasing risk for abdominal obesity and cardiovascular disease. The participants are 447 adults have been identified with abdominal obesity(215 intervention group, 232 comparison group). The intervention consists of a 6-month lifestyle modification and a 12-month maintenance program which follows the former one. Health examination and survey are measured at baseline, 3-month, 6-month, and 12-month at the MEDICHECK health promotion centers in Korea both in 2013 and 2014.

#### Results

After the 3-month intervention, significant improvements in waist circumference, percent of body fat, BMI, blood pressure(SBP and DBP), total cholesterol, LDL cholesterol, fasting blood glucose, and HbA1c were found in the intervention group. Intervention group reduced their percent of body fat(P=.030), BMI(P=.003), and fasting blood glucose(P=.004) compared to the comparison group. The abdominal obesity prevalence was reduced to 25.12% in intervention group and 17.67% in comparison group after the 3-month intervention(P=.055).

#### Conclusions

Lifestyle modification program was found to be effective in improving health status of Korean adults for a short term. Further trials are going to be conducted over a long period in order to



identify the factors which contribute to health improvement and more importantly, to maintenance of improved health status.

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Impact of an health literacy oriented talk for cancer patients at the diagnosis. Insights about to cure or to care

#### BAGNULO Alberto, GASPARINI Ivanna, GANDINI Giovanna, ZOBOLI Alessandra, BRAZZI Serena, OLIVA Emanuela, DE CATA Anna, CHIARENZA Antonio

#### Introduction

Few studies are available on predictors of awareness of the goals of care (GOC) in cancer patients, even fewer studies on strategies to improve concordance in communication between the oncologist and patient. At least 1/3 of patients have a different understanding than the doctor about the intent of chemotherapy and among these ones the majority is elder and did not have adequate documentation and communicative content. We haven't other predictors of concordance in patient-physician dyad about GOC (curative versus non-curative).

#### Purpose/Methods

Our clinical pathway for cancer patient has an orientation talk to chemotherapy, which takes place in the days following the discussion between oncologist and patient about diagnosis and therapeutic program. During this interview between patient+/family members and the reference nurse+our psychologist, we administer a 7 questions survey(SQS), optimized in accordance with the principles of health literacy, to investigate patient-physician agreement about GOC. The findings of the analysis of the SQS are then returned to the oncologist to test its effectiveness in improving communicative concordance.

#### Results

From the analysis of the first 20 pilot cases we confirm that few variables are predictive of communicative concordance between oncologist and patient regarding the GOC and prognosis. With regard to the main objective of the study, namely the possible effectiveness of a heath literacy-correct tool on the style and communication purposes of the oncologist, our data will be fully available at the Conference.

#### Conclusions

A quick tool as the SQS can help operators, in a clinical biopsycosocial-structured pathway, in improving cancer patient-physician concordance about the GOC. The first data point toward a zero share of patients who report, in contrast with what

the doctor thinks, that their GOC is not healing (non curative). It also seems that the concordance increases in inverse relation with stress thermometer.

#### **Comments**

An appropriate approach, from the viewpoint of health literacy, in a context of communication/relation between the oncologist and patient candidate for chemotherapy, may improve the understanding of the aims of therapy and certainly induce a proactive reflection on their communication skills in doctors.

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# Session O2.2: Tobacco-free hospitals – supporting smoking cessation

The effectiveness of hospital base integrated smoking cessation strategy

## HSU Shih-Tien, FENG Man-Hsuan, LIU Chou-Chung, LO Yu-Jung, TSAI Wen-Ling, CHENG Sheng-Pyng

#### Introduction

The hospital endeavours to minimize the use and the hazards of smoking and chewing tobacco by introducing a non-smoking policy into all operations. Collaborations between local governments and community resources are also strengthening a supportive non-smoking environment. An initiative, all-round referral procedure for quitting smoking also enhances the desire and success rate of quitting

#### Purpose/Methods

Regular evaluation and analysis were done according to "ENSH" standards and the Five Action Areas of the Ottawa Charter. The hospital collaborated with communities, schools, workplaces and the armed forces to conduct a variety of various creative health educational activities. Information and interventions were offered in clinics, inpatient wards, and the emergency room, and cessation services and referral procedures were provided outside the hospital

#### Results

No-smoking advocacy was carried out through seminars, multimedia outlets, the website and traditional publications. There were 60 events held with a total of 4432 participants. The number of people that received smoking cessation treatment and health education management was 692. The success rates of 3-month and 6-month cessation are 53.3% and 35.3%, respectively. The inspection team conducts inspections and smokers were

asked to stop smoking. There were also various other ways to report a violator to ensure a non-smoking environment

#### **Conclusions**

By integrating hospital resources with various other resources and utilizing multimedia outlets and traditional publications, we have increased the exposure of tobacco control information. A real-time information and intervention system, incentives, smoking cessation services and referral procedures were all introduced. Cases of smoking cessation services have increased by 40.9%. The results illustrate our determination to build a non-smoking environment

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### Preparing Victoria: Supporting patients to be smokefree

#### **CORBEN Kirstan**

#### Introduction

Smokefree environments have become the norm among health services within Victoria, Australia. Much higher levels of variation exist however, in the approaches health services take in assisting assist people who smoke, particularly patients, to reduce or cease smoking. The Victorian Department of Health is actively preparing health services to achieve a systematic approach to identifying smoking, providing at least a brief intervention response and including smoking related care in discharge communication for all people who access the health service system.

#### Purpose/Methods

Objective: •To develop a systematic approach to the identification of smoking status and the provision of brief intervention support for people who access the Victorian healthcare system. An initial step in preparing to achieve the above objective involved the completion of a situational analysis to identify and understand current practice as well as opportunities for further development within the sector. Further phases of the project involved model development, clinical capacity building and pilot testing within health services.

#### Results

Twenty six health services (representing 63% of the sector) responded to the situational analysis highlighting: •92% are smokefree within property boundaries (indoor and outdoor areas) •50% adopt a standard process for assessing nicotine dependency among inpatients •33% adopt a standard process for managing nicotine dependency (most commonly nicotine replacement therapy and brief intervention) •8% adopt a standard discharge communication process in relation to smoking status and action taken •Vast majority are committed to further improvement

#### Conclusions

While smokefree health service environments are common within Victoria, consistent, evidence based clinical management of nicotine dependency is less so. The Victorian Department of Health is preparing for statewide improvement following the piloting of a systematic approach to the identification of smoking status, the provision of brief intervention support and inclusion of smoking related care in discharge communication for people who access the healthcare system. The project includes elements of peer collaboration and clinical capacity building as key enablers.

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Counselling training in smoke free hospitals: Results in 6 local health authorities in Veneto Region

#### SBROGIÒ Luca, BELTRAME Laura, CINQUETTI Sandro, MICHIELETTO Federica, ORLANDINI Daniela, PELLIZZARI Barbara, TASSO Simone

#### Introduction

In Italy, cardiovascular disease is responsible each year for 42% of deaths, of which the major contribution is given by ischemic heart disease. The Center for Desease Control of the Veneto Region (CCMR), with the financial support of the Ministry of Health - CCM, started up in 6 regional Local Health Authorities a relapse prevention program on hospitalized cardiopathic patients, already stroked by cardiovascular accidents. The program's aim was to promote healthy lifestyles connecting hospital and territory resources. In synergy with the HPH network and Smoking Cessation Services, Veneto Region has improved a antitobacco counselling training on cardiology staff, to motivate inpatients to quit smoking

#### Purpose/Methods

An Anti-tobacco counseling training has been provided in 2013, addressed to 7 cardiologists and 61 nurses: 20 hours training in tobacco addiction and its treatment, basic skills of brief motivational counseling, field practice of learned skills. The evaluation of the anti-tobacco counseling training has been carried out through the monitoring of the counseling activities during the project time of about 7 months (2013) and the collection of some indicators as the patients number forwarded to the smoking cessation service and those who interrupt smoking.

#### Results

Preliminary results: 58 smoking patients (81% men, mean age 54 years±13) received anti-tobacco counselling. 22 (38%), have suspended during hospitalization and 29 (50%) were abstinent at the following telephone contact. Among those patients who have received more than one anti-tobacco counseling, 63.8% were



abstinent, while among those who received one counselling session only 27% were abstinent. 77% of smokers were advised to contact Smoking Cessation Services, only 2 have gone

#### **Conclusions**

Cardiology staff training wants to strengthen Health Promoting Hospitals network, providing the motivational counseling tool as a further resource of the ordinary professional competence, to help quitting smoker inpatients

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Sustained support from staff and patients for campus-wide smoking ban in a large acute teaching hospital but smoking rates remain unchanged.

#### CONLON Greg, GILROY Irene, DOHERTY Kirsten, CLARKE Anna, DALY Leslie, WHITESIDE Brenda, FITZPATRICK Patricia, KELLEHER Cecily

#### Introduction

Since 2009 St. Vincent's University Hospital (SVUH) has led Ireland in establishing a smoke-free campus norm across Irish hospitals, culminating in an ENSH gold level award. In 2013 a second significant evaluation of this campus-wide ban was undertaken, following an initial post-ban evaluation in 2010. This paper focuses on the findings of the 2013 inpatient and staff smoking surveys and changes between 2010 and 2013 in acceptance of the smoking ban amongst participants, their smoking rates and attitudes towards smoking.

#### Purpose/Methods

A representative sample of staff was selected (n= 300), quota controlled for occupational category. A census survey of all inpatients in the hospital was conducted across a single day; 182 patients were fit for interview. Data was collected using an interviewer-administered questionnaire which determined smoking prevalence, validated by breath carbon monoxide (CO) testing (inpatients only), acceptability of the ban and the impact on smoking behaviour. This data was compared with the comparable survey data from 2010.

#### Results

No significant change in smoking prevalence between surveys was observed (inpatients 21.4% vs. 18%), (staff 14% vs. 11%). Agreement with the ban remains high (patients 87.9% vs. 84.2%), (staff 81% vs. 83%). Ban acceptability was highest amongst doctors (95%) and lowest in allied service staff (60%). Patient compliance remained the same (49%). Sixty-five percent of patients (n=20) who continued to smoke agreed with the ban.

Staff perceptions of ban compliance by patients and staff reduced significantly between surveys (p<0.01).

#### Conclusions

Although acceptance of the smoking ban is high, even amongst smokers, some patients find it very difficult to remain smoke-free while in hospital. Staff perceptions of policy compliance remain variable, possibly due to temporary operational difficulties with the designated exemption smoking area. Identification of smokers and systematic provision of smoking cessation support requires an ongoing consolidated approach from all staff members to support patients within a smoke-free hospital.

#### Comments

Please consider this abstract for poster presentation if it cannot be accepted for oral presentation.

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## Impact of a Long-Term Tobacco-Free Policy in a Comprehensive Cancer Center

#### MARTINEZ Cristina, FU Marcela, MARTINEZ-SANCHEZ Jose María, ANTÓN Laura, CARABASA Esther, RICCOBENE Anna, SUREDA Xisca, FERNANDEZ Esteve

#### Introduction

Spain has passed two smoke-free laws since 2005; the first law banned smoking in indoor places, and the second one extended the ban to outdoor areas of some premises such as acute hospitals. This study assesses the impact of a long-term tobacco control policy project among hospital workers before and after the two national smoke-free laws.

#### Purpose/Methods

Six cross-sectional surveys were conducted among a representative sample of workers of a Comprehensive Cancer Center in Barcelona from 2001 to 2012, using the same standardized questionnaire. Logistic regression was used to compare differences in the odds of smoking after the laws (baseline versus 1st law; 2nd law versus 1st law).

#### Results

Smoking prevalence declined from 33.1% at baseline, to 30.5% after the 1st law, and to 22.2% after the 2nd (p=0.006). After the 2nd law the odds of smoking reduced remarkably (OR=0.69; 95% CI: 0.47-1.02; p=0.06). The probability of smoking decreased among  $\geq$  35 years old (1st law: OR=0.61, p=0.01, and 2nd law: 0.62, p=0.07) and among health professionals (after the 2nd ban OR=0.62, p=0.99). Changes included an increase of occasional smokers, a rise of abstinence during working hours, a reduction

on the exposure to second hand smoke, and an increase of the overall support to the smoke-free hospital project, but smokers became more reluctant on agreeing with the exemplary role of health professionals.

#### **Conclusions**

A long-term tobacco control project along with smoke-free laws strikingly reduced smoking rates among employees, mainly among ≥ 35 years old and among health professionals

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## Session O2.3: Supporting reproductive and baby health

### Kangaroo Club--A Breastfeeding Support Group

#### ANG Yen, PONG Kwai-Meng, CHUN Teik Lan, TAY Pai Lim

#### Introduction

Penang Adventist Hospital, the first private hospital in the northern region of Malaysia to be accredited as Baby Friendly Hospital, strives to seek ways to encourage breastfeeding among mothers who deliver their baby at the hospital. As a hospital policy, formula milk is not made available to mothers unless for medical reasons. However, mothers face challenges after discharge, as culturally the society does not encourage breastfeeding. Formula companies are aggressive in persuading mothers to replace breastfeeding with formula. Therefore, there is a need to provide some form of support for mothers to continue nursing their babies.

#### Purpose/Methods

To encourage mothers to continue breastfeeding after discharge from the hospital, a breastfeeding support group named Kangaroo Club was formed. The club is open free of charge to all pregnant women, breastfeeding mothers, or family members. The kangaroo club members meet four times a year to share experiences or tips in breastfeeding. A lactation nurse is employed to organize activities of the club and to provide continual support to all breastfeeding mothers. Special activities would be organized to coincide with major events such as the World Breastfeeding Week.

#### Results

In 2013, a total of 407 mothers attended our Kangaroo Club meetings. Doctors or other relevant specialists were invited to provide health talks such as "Breastfeeding Myths & Fallacies", "Is my child's milestone normal" and "Eczema in children". During the World Breastfeeding Week, 25 mothers and their babies held a One-Minute Simultaneous Breastfeeding while being serenaded by a violinist. 69 certificates of recognition were

awarded to mothers who have successfully breastfed their babies for more than one year.

#### Conclusions

Research shows that Asians, particularly the Chinese do not nurse their babies as much as other ethnic groups. Majority of patients coming to our hospital are Chinese. The Kangaroo club is formed to help our patients overcome the cultural and societal barriers of exclusive breastfeeding by providing them education and peer support. The club hopes to convince these mothers that they are not alone in nursing their baby and that breastfeeding is one of the best things to do for their newborn.

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## Rolling out the Baby-friendly Hospitals initiative in Austria - Results of an evaluation study

#### **DIETSCHER Christina**

#### Introduction

Although breastfeeding is the natural way of infant feeding, and there is good evidence for its effects on the health of mothers and babies, the WHO recommendations of six months of exclusive breastfeeding are far from being fulfilled in Austria. Insufficient support for mothers and families in maternity care is one of the reasons. This is why the Austrian Ministry of Health commissioned the Austrian HPH network and the Ludwig Boltzmann Institute Health Promotion Research with rolling out the Baby-friendly Hospitals, an initiative by WHO and UNICEF that fosters breastfeeding support in maternity care, in Austria.

#### Purpose/Methods

The roll-out used public relations strategies, created information and educational material for use in baby-friendly hospitals, offered training workshops for maternity staff, and, with a prize for the 3 best baby-friendly hospitals in Austria, created financial incentives for undergoing the baby-friendly certification process. These activities were evaluated by two online surveys (2012, 2013) amongst head staff of Austrian maternity wards, telephone interviews and workshop feedback forms.

#### Results

During the roll-out, the percentage of maternity wards interested in a certification rose from 33% in 2012 to 61% in 2013. The number of certified hospitals rose by 5 and is now 15 hospitals (19% of Austrian maternity wards). The number of births that are delivered in baby-friendly hospitals rose by 3.300 per year up to currently 15.300 (20% of the annual births in Austria).

#### Conclusions

A baby-friendly hospital certification means substantial changes in everyday practice in maternity wards. Under current conditions of economic pressure, hospitals need a lot of support to embark



on this way, although most lead staff of maternity wards are convinced that a baby-friendly certification is a substantial contribution to the quality of maternity care.

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# Facilitating and hindering factors for implementing the Baby-friendly Hospital Initiative in Austria: A qualitative study

### WIECZOREK Christina C., SCHMIED Hermann, DÜR Wolfgang

#### Introduction

The advantages of breastfeeding for infants and their mothers are well-known. To support breastfeeding, the Baby-friendly Hospital Initiative (BFHI) was launched by the WHO and Unicef in 1991. Multiple studies have proven that BFHI increases the initiation and duration of any and exclusive breastfeeding. In Austria, to date only 19% of maternity units have been accredited. Few studies have investigated facilitating and hindering factors for BFHI implementation. This study examines perceptions of BFHI held by midwives, nurses, and physicians in Austria.

#### Purpose/Methods

Semi-structured interviews were used to investigate the perceptions of the different professional groups regarding the selection, installation, and implementation of the BFHI. The study took place in three maternity units in an urban area of Austria. Participants were recruited using purposive sampling. In total 35 health professionals (11 nurses, 11 midwives, 13 physicians) where interviewed as well as one quality manager who was critically involved in the implementation process. Data were analyzed using thematic analysis.

#### Results

Hospitals' selection criteria are based on different rationalities including the fulfillment of external expectations (including marketing aspects), improvement of existing services as well as collaboration between different professional groups. A 'change agent' was identified in each hospital that promoted the BFHI and had to team up with the heads of other professional groups and finally also with the head of the unit. Installation of the BFHI included multiple steps. The study further revealed that professional responsibilities and resources, staff age / experiences / attitudes, social control and peer support, skills and competences of staff, intra- and inter-professional collaboration, and parents' expectations and attitudes either facilitated or inhibited BFHI implementation.

#### Conclusions

The findings suggest that for the selection of BFHI, several factors have to appear concurrently to enable maternity units to start installation and implementation of the BFHI. It further shows that installation is a time consuming process and implementation is facilitated or inhibited by multiple factors. The broad philosophical stance on best practice approach of the BFHI seems to largely challenge professionals' work routines on maternity units

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## Tackling Women Inequalities Addressing Comprehensive Reproductive Health Care

#### **MENDEZ Elvira, FERNANDEZ Rossend**

#### Introduction

The Program "Care for Maternity at Risk", Spain (1991-2013) is leaded by Association Salud y Familia (ASF), a non-profit NGO. The program is based on a tripartite scheme involving collaborations between public healthcare services, private abortion clinics, civic associations and ASF. The Program is based on pro-choice principles and provides services to women and vulnerable families in the areas of abortion prevention and maternal health promotion.

#### Purpose/Methods

The program offers a portfolio of services in reproductive health care for vulnerable groups of women as: \* Pregnancy test and pregnancy crisis counseling and support. \* Co-financing prochoice pregnancy interruption. \* Active prevention of repeat abortion through FP counseling and free provision of long acting contraception. Likewise during pregnancy crisis care there are provided such additional services as: \* Active screening of partner violence. \* Immediate psycho-social care for victims. \* Access to free juridical and psycho-social counseling.

#### Results

The program has served 25.434 vulnerable women during 2009-2013 and its greatest achievements are: a) accessibility to public coverage of the abortion cost, b) free provision of long acting contraception (IUD and Implanon) to groups as adolescents, poor families and migrant women, c( systematic screening of partner violence and immediate free psycho-social and juridical orientation for the victims, d) easy access to an ASF mosaic of services focused on the improvement of social determinants of reproductive health.

#### Conclusions

The program is sustainable –the framework of public and private partnership has ensured the provision of services for 22 years-, equitable – improves the access to comprehensive reproductive health care for vulnerable women –, integrated – strong links between safe abortion and free post-abortion long lasting

contraception – and has added value – combat repeat abortions and other relevant risks as partner violence.

#### Comments

The program has developed the capability to face new vulnerable populations and women's emergent profiles of deprivation.

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## Current Challenges of the Indonesian Midwife Professional Organization: Lessons Learned

#### PRATOMO Hadi, WURYANINGSIH Caroline Endah, SALENDU Alice, RIANTOPUTRA Corina, SUPRADEWI Indra

#### Introduction

The Ikatan Bidan Indonesia (IBI - Indonesian Midwife Association) was established on June 24, 1951. It is one of the biggest women organization with a member of 88.796 persons covering different places from provinces up to the village level. In reducing both maternal and infant mortality the role of a midwife is very important. They are the front line of maternal and child health services. The purpose of this study was to identify current challenges of the IBI.

#### Purpose/Methods

This was a qualitative study in 3 sample provinces (DKI Jakarta, West and Central Java) representing 30% of the members. The data was collected using an in-depth interview (with 8 persons) and three Focus Group Discussions with 27 participants. An instrument guideline on current issues faced by IBI, government policies and its role & challenges was used. Matrix of qualitative data was made to analyze data using content analysis technique.

#### Results

The women leaders of IBI faced both internal and external organizational challenges. Internal challenges included human resource management, quality and professionalism of its members, seniority and preparing future women leaders, double job function, potential legislative members and financial issues. Meanwhile, the external challenges were current government policies such as Ministerial decree on midwife authority (Permenkes 1464/2010, Delivery insurance, working contract mechanism for the midwife) and draft of midwifery law. In each province the IBI had a specific challenge.

#### **Conclusions**

The results of this study could not be generalized representing all provinces. However, the results provided a description of the current challenge posed by the IBI officers. Both current internal and external challenges were identified. In each province, the IBI

officers faced a specific challenge i.e. dealing with a multicultural background target population (DKI Jakarta), posed an internal accountability problem (West Java) and faced a wide geographic service areas (Central Java).

#### Comments

I would like to request this for the oral presentation as my university will pay travel only if I can make oral presentation (not poster). Please take this into consideration.

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## Session O2.4: Healthcare systems and organizations I

Healthy Smile Healthy Life: integrated care to improve oral and general health

#### **MORRIS Christine**

#### Introduction

This presentation will describe the framework used by the South Australian (SA) Dental Service Health Promotion Division to work in partnership with external agencies to integrate oral health into general health. The strategies have been used in a variety of settings to build the capacity of general health workers to increase their awareness of the importance of oral health and to refer patients for early intervention or those in need of care.

#### Purpose/Methods

Building capacity and organisational change are key health promotion strategies. In the past many agencies have worked in silos on their health business, including oral health practitioners who often worked in isolation on individual behavioural change. SA Dental Service developed a framework to integrate oral health into general health using leadership and collaboration. By providing health promotion staff to lead collaboration and using organisational change principles, strategies are embedded into policies and procedures for sustainability.

#### Results

The framework includes evidence based practice, selecting a steering group, development of shared values and evaluation before dissemination to a wider audience. The programs that have been implemented have resulted in over 10,000 preschool children being referred for dental check-ups, older people living in the community improving their general and oral health and increased Aboriginal attendance at mainstream dental clinics from less than 1,000 to almost 10,000. In addition over 30,000 smoking interventions have been provided to patients who smoke.



#### Conclusions

Working in collaboration to embed organisational change has improved oral and general health outcomes for a variety of population groups. Partners have overcome barriers and built sustainable ways of integration with very positive outcomes. This way of working could be adapted by other "minority" health issues to gain traction in mainstream general health agencies.

#### Comments

This presentation could also be in the section on sustainable and health promoting health services

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## Way of turning focus into health promotion at the largest emergency department in Norway

#### **BUKHOLM Ida**

#### Introduction

Akershus university hospital is one of the largest emergency hospitals in Norway. The catching area is from 500 000 inhabitants. In an emergency department, the focus is almost always to deal with the acute patient problems. There is usually no or very little focus on the prevention and health promotion, because it is easy to think that the focus regarding prevention and health promotion should be at community and if in the hospitals, at the specialized department. However, in an emergency department, patients come with symptoms before the specific disease has been established, and patient population is unselected. This makes the emergency department in a hospital an important place to evaluate parameters about life styles which have considerable impact on health and disease outcomes. The impact of obesity, especially central obesity, physical inactivity on cardiovascular disease, diabetes, and several forms of malignancy is well known. Some of mechanism is through insulin resistance and inflammation. Akershus University Hospital has the health care responsibilities for majority of immigrants from ASIA and Africa living in Norway. The prevalence of obesity and metabolic syndrome is high in the emigrant population from Pakistan, Sri Lanka and Somalia (PSS). Results from a national survey show that outcome from breast cancer in PSS group is considerable inferior to the ethnic Norwegian population. One of the parameters differing between these two groups is incidence of overweight and diabetes

#### Purpose/Methods

We have at the Akershus University Hospital started a prospective study, where patients coming to emergency medicine with symptoms of chest pain, chronic obstructive lung disease, diabetes, abdominal pain and patients with another ethnic background are screened for BMI, central obesity, alcohol and

tobacco use, level of physical activity and HbA1c (average blood glucose for last 3 months). We will follow the patients (through medical records and in collaboration with GP) and results about BMI, central obesity physical activity will be correlated to the development of cardiovascular disease, and malignant disease.

#### Results

We would like to present our preliminary results and discuss the opportunity to for example run a multi national study. We believe that these kinds of studies in an emergency medicine department are important to turn focus onto also prevention and health promotion in the hospitals.

#### Conclusions

We would like to present our preliminary results and discuss the opportunity to for example run a multi national study. We believe that these kinds of studies in an emergency medicine department are important to turn focus onto also prevention and health promotion in the hospitals.

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## Enhancing implementation of national guidelines through activd participation of the professionals

#### MARIPUU Sara, ÅKESSON Eva

#### Introduction

The 'Swedish National Guidelines for Methods of Preventing Disease' provide recommendations for professionals how to support patients to change an unhealthy lifestyle habit. Physical therapists are one of the targeted professional groups, being experts in physical activity. To implement the guidelines in the health care practice of primary care a structured implementation process was initiated. This was done in cooperation between the public health department of the County Council of Kronoberg and the executive leaders of the physical therapy department.

#### Purpose/Methods

The purpose was to enhance the implementation through active participation of the professionals. The target group was 40 physical therapists. The implementation process consisted of several steps during one year. A thorough presentation of the guidelines was given. A questionnaire was used for identifying barriers and facilitators. The result was discussed in smaller groups. This lead to a planning of educational activities and of preventive care processes for specific patient groups. The educational activities were carried out in groups to facilitate discussions.

#### Results

The primary barriers were lack of time to translate the guidelines into daily practice and lack of goals and routines for the

preventive work. The primary facilitators were the perception of prevention as something important and of having an expert role in physical activity. 95 % took part of the educational activities, e.g. Motivational Interviewing. The medical records showed an increasing amount of notes about support according to the guidelines. The executive leaders initiated local guidelines for specific diagnostic groups.

#### **Conclusions**

Implementation of new knowledge and guidelines takes time and needs a variety of interventions. Support from the leaders is essential. They must express a willingness to prioritise time and effort. Together with the professionals they must decide how to manage the implementation process and formulate goals. The work is facilitated by local advocators. They can stimulate others by giving examples how the new guidelines relate to what is already done. This model for implementation could be useful for other professional groups.

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## Session O2.5: Networking for Health Promoting Hospitals

Results of the HPH-Catalunya strategic plan 2011-2013

#### SANTIÑÀ Manel, JUVINYÀ Dolors, SIMÓN Rosa, BRIANSÓ Maria, IBÁÑEZ Rocío, BALLESTER Mònica, MONTEIS Jaume, PÉREZ Ana Carol, PLANAS Maria Josep, ROMERO Maria Auxiliadora

#### Introduction

The Catalan HPH started its activity in 2008. Its mission is leading the dissemination and implementation of HPH in the Catalan Region, promoting the incorporation of concepts, values, strategies, standards and indicators in its structure and organizational culture. The Catalan network is the only HPH network in Spain. It has the support of the Chair of Health Promotion of the University of Girona and the Public Health Department of the Catalan Government.

#### Purpose/Methods

This communication presents the state of the art three years after the creation of the work plan 2011-2014. In 2011 a strategic plan was designed for the period 2011-2014 with the main objective of accomplishing the HPH international action plan. The strategic plan has 7 working areas divided in 32 objectives to be achieved in four years.

#### Results

Ending the year 2013, after three years since the creation of the strategic work plan, from a global of 33 objectives 19 have been achieved, 11 are in process, 1 is being reviewed and 2 have been deleted. This means that by the end of 2013 the 60% of the objectives have been achieved and the 33% are in process. The objectives in process are expected to be accomplished in 2014.

#### Conclusions

The strategic plan is a very good tool to achieve regional and the international objectives by the Catalan HPH network. The creation of the Strategic Plan 2011-2014 allowed the Catalan network to be more effective.

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### Health promotion awareness program in hospitals through a training plan

JUVINYÀ CANAL Dolors, CASALS ALONSO Carla, MONTEIS CATOT Jaume, SANTIÑÀ VILA Manel, PÉREZ SEGURA Ana Carol, BALLESTER ROCA Mònica, FIGUERAS SALART Nora, BERTRAN NOGUER Carme

#### Introduction

From the Cahir on Health Promotion of the University of Girona and the Catalan Health Promoting Hospitals and Health Services network a training plan has been design with the aim of raising awareness about the implementation of health promotion in hospitals among health professionals. This action, described in the strategic plan of the Catalan network, highlights the relevance of professionals health promotion training in order to issue and promote an organitzacional cultural change and a better quality of services.

#### Purpose/Methods

An online training plan has been designed which includes an elemental course of 5 hours and a deeper course of 20 hours. The aim of the plan is to disseminate the strategy and the movement of health promotion in hospitals, to improve health promotion competences among health professionals and to motivate health promotion interest.

#### Results

The pilot plan of the elemental course has had the participation of 12 health professionals representing 8 health services from the Catalan HPH network. The first edition of the elemental course has had the participation of 31 health professionals representing 9 health services. Several requests to participate in the 20 hours deeper course have been received.

#### Conclusions



The participation in the elemental course has been positively evaluated by the health professionals and has shown the interest in giving continuity to this training through the 20 hours course by some participants.

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Patient-Oriented Health Promotion
Practice - Experience from Taiwan
HPH Network

#### LAI Yi-Mei, LIN Chin-Lon, WANG Ying-Wei, WANG Chia-Fen, LIN Chia-Chen, WANG Chih-Hsuan

#### Introduction

Taiwan HPH Network host HPH Model Prize Award since 2008. The purpose of giving out HPH awards is to promote HPH visibility, recognize extraordinary fulfilment of WHO standards, recognize extraordinary fulfilment of health promotion topics and improve the quality of Taiwan HPH Network. This study reviewed the standard 2(Patient Assessment) & 3(Patient Information and Intervention) of the self-assessment form for implementing health promotion in hospitals from winner hospitals to find out the best health promotion practices.

#### Purpose/Methods

The HPH Model Prize competition regulation is composed of 2 sections, HPH self-assessment form and key health promotion subjects (ex: tobacco control, weight reduction, age-friendly hospital, etc.). This study reviewed standard 2 "Patients Assessment" and standard 3 "Patient Information and Intervention" of the self-assessment form in 6 winner hospitals to find out the special characteristic of these two issues in health promotion practices. By sharing these experiences, we wish to enhance the health care quality for patients.

#### Results

All hospitals use healthcare information system (HIS) or specialized sheet to collect health information (e.g. smoking, drinking, betel nut chewing) and provide health promotion interventions. They provide diverse health promotion education materials to different target groups and constantly conduct satisfaction survey. Reducing the usage of medical terminology can facilitate communication and increase acceptance. To monitor patients' health status, HPH members update smoking and drinking history of patients every 2 years and provide health consultation by 24 hours call center.

#### Conclusions

The traditional mission of hospital is disease treatment and healthcare professionals are familiar with patient assessment and intervention. Taiwanese HPH model hospitals incorporated health

promotion concepts into daily practices and systematic assess patient's health status. The providing of patient-oriented health promotion practice regularly not only meet patients' expectations but also enhance patient's health gain and improve the relationship between healthcare practitioners and patients.

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## The implementation of workplace health promotion in Taiwanese HPH Model Hospitals

#### LIN Chia-Chen, LIN Chin-Lon, WANG Ying-Wei, WANG Chia-Fen, LAI Yi-Mei, WANG Chih-Husan

#### Introduction

Taiwan HPH Network was established in 2006. We host HPH Model Prize Award since 2008. The purpose of giving out HPH awards is to promote HPH visibility, recognize extraordinary fulfilment of WHO standards, recognize extraordinary fulfilment of health promotion topics and improve the quality of Taiwan HPH Network. This study aims to understand how Taiwanese HPH Model Prize winners fulfill standard 4 (Promoting a Healthy Workplace) in the "Self-assessment Forms for Implementing Health Promotion in Hospitals".

#### Purpose/Methods

The HPH Model Prize Competition regulation is composed of 2 sections, HPH self-assessment form and key health promotion subjects (ex: tobacco control, weight reduction, age-friendly hospital, etc.). Medical professionals are in high risk of certain occupational hazards and lead to physical and mental illness (ex: burnout, depression, suicide). We reviewed the descriptive data in standard 4 of the "Self-assessment Forms for Implementing Health Promotion in Hospitals" from 6 HPH model hospitals and collect best practices on healthy workplace.

#### Results

All HPH model hospitals in Taiwan have established HPH committee to promote healthy workplace, the committee usually has four groups: organization, patient, employee and community. Some common practices among HPH model hospitals including: conduct staff health needs assessment and satisfaction survey, implement health examination and physical fitness test, provide healthy meal, smoking cessation/weight reduction class, set up sports club and give financial support. Mental health is also an important issue in staff care program.

#### Conclusions

Taiwanese HPH model hospitals provide safety working environment for employees and take good care of their health. The staff health promotion program is very diverse and

innovative, it cover physical, mental and spiritual aspects. Apply Balance Score Card to promote health promotion activities can easily fulfill the hospital vision of health promotion. Promoting healthy workplace not only can improve employee's health status and performance but also bring everyone together, increase employee satisfaction and identification to the organization.

#### Comments

The HPH Model Prize Competition is a productive way to elect best health promotion practice among HPH members. Advocating workplace health promotion will create a healthy organizational culture. More evidence is needed to demonstrate the benefits of promoting healthy workplace and advocate to all HPH members.

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# Session O2.6: Symposium: Alcohol Cessation Intervention at the time of Acute Fracture Surgery – The Scand-Ankle study

Does alcohol intervention affect other lifestyle factors in surgical patients? – The Scand-Ankle study

#### WERNHEDEN Erika, AALYKKE Marianne, OPPEDAL Kristian, PEDERSEN Bolette, EGHOLM Julie WM, TØNNESEN Hanne

#### Introduction

The Scand-Ankle study is an RCT, that investigates the effect of a 6-week gold standard alcohol intervention (GSP-A) on postoperative complications in hazardous drinking patients undergoing ankle fracture surgery. As a sub-analysis, we investigated whether GSP-A affects other lifestyle factors e.g. smoking, overweight, malnourishment and physical activity.

#### Purpose/Methods

The 64 randomized patients were allocated to GSP-A or usual care. The lifestyle factors were registered together with surgical characteristics. Both groups were followed up at 6 weeks, 3, 6, 9 and 12 months. The two groups were compared at baseline and 6 week follow-up regarding lifestyle by intention to treat using non-parametric statistics.

#### Results

The analyses are ongoing and will be presented at the conference.

#### Conclusions

The results of this study will add knowledge on how GSP-A may affect other lifestyle factors in surgical patients. This knowledge is important because no previous studies have analyzed the effect of monofactorial lifestyle intervention on multiple lifestyle factors.

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Alcohol and Ankle fracture surgery:
Characteristics and complication rate
after ankle fracture surgery of nonparticipants from the Scand-Ankle
RCT

#### AALYKKE Marianne, WERNHEDEN Erika, PEDERSEN Bolette, EGHOLM Julie WM, TØNNESEN Hanne

#### Introduction

The Scand-Ankle study is an on-going RCT;that investigates the effect of a 6-week gold standard alcohol intervention on postoperative complications in patients drinking >21 units/week;undergoing ankle fracture surgery. Previously;a 25-year old Danish study showed a complication rate at 33% among patients drinking >35 units/week;and a recent American study has revealed a double complication rate among surgical patients drinking >2 units/day. We wanted to investigate whether this applies for the eligible;but non-participants in the Scand-Ankle study.

#### Purpose/Methods

The non-participants all gave informed consent to follow-up via their medical record material. The perioperative patient characteristics were obtained from their medical record material. The baseline characteristics from the non-participating group (N=67) were compared to the baseline characteristics of the patients enrolled in the study so far (N=65);using Fisher's exact test. Complications developed during the first 6 weeks postoperatively were registered and compared to the literature. Cost-effectiveness analyses of the non-participants were performed.

#### Results

Preliminary results showed that 10 out of 30 non-participating patients developed complications. The rest of the results will be presented at the conference.

#### Conclusions

If the final results confirm the preliminary results; the conclusion is that patients drinking >21 units/week still are at very high risk at ankle fracture surgery.



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## Alcohol Cessation Intervention at the time of Acute Fracture Surgery – The Scand-Ankle study

#### **TØNNESEN Hanne, NEUMANN Tim**

#### Introduction

Program for the symposium: A Gold Standard Program for Alcohol Cessation Intervention at the time of Acute Fracture Surgery (K Oppedal, Norway) Does Alcohol Cessation Intervention affect other Lifestyle Factors in Acute Surgical Patients? (E Wernheden, Denmark) Alcohol and Ankle Fracture Surgery: Characteristics and Complication Rate after Ankle Fracture Surgery of Non-Participants from the Scand-Ankle study (M Aalykke, Denmark) Cost-Effectiveness of a Gold Standard Program for Alcohol Cessation Intervention at the time of Acute Fracture Surgery (B Pedersen, Denmark/Sweden) Discussion and further perspectives Chairs: H TØNNESEN (Denmark/Sweden) & T NEUMAN (Germany) About the symposium The Scandinavian research program Scand-Ankle is a collaboration between orthopaedic clinics and alcohol researchers in Scandinavia. Scand-Ankle consists of several studies with the purpose of improving patient safety for surgical patients with hazardous alcohol intake. This includes a multicenter RCT investigating the effect of a Gold Standard Program for alcohol cessation intervention (GSP-A) for patients undergoing ankle fracture surgery. The first results of the current RCT are novel and impressive and will be presented in this symposium: First, the effect of the GSP-A on alcohol consumption in the perioperative period is presented based on the first 47 patients included in the trial. Second, it is investigated whether the GSP-A has had any effect on other lifestyle factors (especially smoking) in the same perioperative period. Third, characteristics of the non-participants are given as well as a description of the complication rate among these patients. Fourth and finally, the cost-effectiveness of the GSP-A is presented based on perioperative costs and effect on alcohol consumption for the 47 patients included. The symposium will conclude with a more general discussion among the participants and speakers of further perspectives, possibilities and challenges regarding the Scand-Ankle study.

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### Cost-effectiveness of a gold standard program for alcohol cessation

### intervention at the time of acute fracture surgery

#### PEDERSEN Bolette, HANSEN Poul Erik, MADSEN Bjørn Lindegaard, TØNNESEN Hanne

#### Introduction

A high alcohol intake increases the risk of complications after surgery and treatment is resource-intensive. No studies have previously investigated the cost and cost-effectiveness of alcohol cessation intervention in acute fracture surgery. However, a comprehensive gold standard program for alcohol cessation intervention (GSP-A) has recently been shown to significantly reduce alcohol intake in the perioperative period for patients with hazardous alcohol intake who underwent ankle fracture surgery included in the Scand-Ankle multicenter RCT.

#### Purpose/Methods

This study presents the first economic analyses on the GSP-A in an incremental cost-effectiveness analysis of 47 adult patients with ankle fracture and an intake of at least 21 alcohol units per week in the last three months. Patients were randomized to the 6-week GSP-A including weekly follow-up visits or treatment as usual. The analysis included direct and indirect perioperative costs as well as cost-effectiveness regarding alcohol abstinence after six weeks. Cost-effectiveness planes and acceptability curves were constructed by bootstrapping.

#### Results

The GSP-A was less expensive than treatment as usual in the sixweek perioperative period with an insignificant (p=0.319) average reduction in costs per patient of €2,268 (95% CI; €-7,129 to 2,107)). The difference in cost was mainly due to lower hospital costs in the intervention group. Furthermore, GSP-A reached a net savings of €5,155 per patient achieving abstinence. The cost-effectiveness plane showed that the GSP-A was both less costly and more effective in more than 90% of the cases.

#### Conclusions

There was a very high probability that the GSP-A would be costeffective in the perioperative period. Future research should evaluate postoperative complications in a larger study cohort and related costs and cost-effectiveness. Until then, generalization of the results should be considered carefully. Furthermore, the costs related to the individual patient pathways could be difficult to compare among countries because of the differences in treatment costs, salaries, fees, etc.

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A gold standard program for alcohol cessation intervention at the time of acute fracture surgery – the Scand-Ankle Study

#### OPPEDAL K., PEDERSEN Bolette, LAURITZEN J.B., MADSEN B.L., HELANDER A.TØNNESEN, Hanne

#### Introduction

Sustained high alcohol consumption above two drinks per day is associated with an increased risk for postoperative morbidity. Four weeks of alcohol abstinence prior to elective surgery is recommended to reduce this risk, but for trauma patients the preoperative period is often very short. The ongoing randomized clinical trial (Scand-Ankle) will reach a conclusion on the effect of a new Gold Standard Program for Alcohol Cessation Intervention (GSP-A) on the frequency and severity of postoperative complications after acute fracture surgery.

#### Purpose/Methods

This first part of the trial evaluated the effect of the GSP-A on alcohol consumption. The study was a multicenter RCT involving 47 patients with a risky alcohol intake (exceeding 21 alcohol units per week over the last 3 months) scheduled for osteosynthesis of an ankle fracture. Patients were randomized to the 6-weeks GSP-A or treatment as usual. The GSP-A combined patient education and pharmacologic strategies including benzodiazepine therapy for withdrawal symptoms, controlled disulfiram, and B vitamin supplementation.

#### Results

The number of alcohol abstainers after 6 weeks was 14/24 (58%) for the GSP-A patients compared to 3/23 (13%) for the controls (p=0.002). The alcohol consumption was reduced in the GSP-A group; the median was 0 units/week (range 0-45) compared with 24 units/week (0-72) for the controls (p<0.0001). These results were supported by lowered phosphatidylethanol; 0.05 (0.03-2.16) versus 0.50 (0.01-1.52), (p=0.036), but not by carbohydrate-deficient transferrin; 1.50 (0.95-5.84) versus 1.72 (0.78-6.38), (p=0.53).

#### Conclusions

The GSP-A for orthopedic trauma patients significantly increased the number of abstainers and overall reduced alcohol consumption in the perioperative period. Adherence to the GSP-A and compliance with disulfiram therapy were generally good. However, the long-term effect of GSP-A on postoperative complications or alcohol use still remain to be determined.

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## Session O2.7: Symposium: HPH and environment

### HPH and Environment Symposium 2014

#### CHIOU Shu-Ti

#### Introduction

Many countries have suffered from climate change and extreme weather in recent years. Development of environment-friendly healthcare system is an issue that health care providers should put more efforts into.

#### Purpose/Methods

The Task Force on HPH and Environment was established four years ago under the International HPH Network and contributed to the visualization of environment-related health promoting issues in the network, and gave examples on best evidence practice.

#### Results

In this year's HPH and Environment Symposium, the Task Force would like to invite the winners of the 2013 International Environment-Friendly Hospital Team Work Best Practice Award, organized by the Health Promotion Administration of Taiwan, to share experiences on environment-friendly and energy conservation measures. We will also invite experts to comment on the different topics presented by the hospitals.

#### Conclusions

We hope that through the presentations of best practices, other hospitals interested in environment-friendly issues can learn and share from this symposium.

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## Session O3.1: Improving patient health literacy by educational interventions

Characterization of educational activities addressed to patients and relatives in a tertiary hospital.

#### BERTRAN Maria Jesús, JANSÀ Margarida, CADENA Roser, VILARDELL Jordi, GARCIA Ferran, ESCARRABILL Joan

#### Introduction

In Catalonia, one essential item of the Hospital Accreditation System made by Catalan Public Health System is related to patient education. The analysis of groups of patients receiving educational activities or following structured patient self-management education programs and also the analysis of Health Care Provider (HCP) proposals may help design hospital policies related to this topic

#### Purpose/Methods

1.To identify groups of patients receiving patient education activities. 2.To analyze the quality of structured patient education self-management programs, and 3.To know HCP proposals, in tertiary hospital. A cros-sectional study through an online survey based on National Standards for Diabetes Self-Management Education was performed, registering: department; target patients; type of activities; characteristics of programs (structure, process and results); HCP proposals. The survey was sent to HCP who registered data obtained from September-December 2013. Descriptive statistical analysis was made

#### Results

70 registries of educational activities and 50 registries of structured education programs were identified, addressed to patients and relatives with diabetes-(12), musculoskeletal-(9), obesity-(7), COPD/asthma-(4), pelvic floor-(3), transplantation-(2), intestinal-inflammation/hepatopathy-(2), hypertension-(2), cancer-(2). cardiac insufficiency-(2), AIDS-(1), chronic renal insufficiency-(1), splenectomy(1), anticoagulation-(1) and older dependence-(1). Variability related to structure, process and outcomes evaluation was detected. The HCP proposals were: specific resources; groupal, face to face and telematic training approaches; transversal hospital/primary care coordination; outcome evaluation and research.

#### **Conclusions**

The open online survey has provided updated information on trends and weak points in patient education. The results of this survey can be used to monitor the quantity and quality of educational activities and self-management programs. In addition, this analysis will allow the definition of hospital policies related to therapeutic patient education.

#### Comments

It's important to take into account the proposals of health professionals mainly related to learn non-technical skills related to the improvement of patient education strategies both in hospital and primary care.

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# The 7-year follow-up of the Björknäs lifestyle intervention study – a randomized controlled trial in primary care

#### **ERIKSSON Margareta**

#### Introduction

Lifestyle intervention with increased physical activity and healthy diet reduces the risk of diabetes and improve cardiovascular risk factors. Large intensive multicenter trials have also shown positive persistent long-term effects but such data from interventions in primary health care are rare. The Björknäs study has shown that lifestyle intervention in the primary care setting have positive 3-year effects on blood-pressure, anthropometry, fitness and quality of life by increase in physical activity and diet, and also that such intervention is cost saving.

#### Purpose/Methods

In the extended follow-up of the Björknäs study we investigated in which extent the originally-achieved lifestyle changes and risk reduction remain 4 years after discontinuation of intervention. A total of 151 men and women, aged 18 to 6 years, at moderate to high risk of cardiovascular diseases, were randomly assigned either to a lifestyle intervention or control group. Lifestyle intervention consisted of supervised exercise sessions and diet counseling for 3 months, followed by regular group meetings over a 3-year period.

#### Results

At 7-year follow-up lifestyle intervention significantly reduced systolic blood-pressure (p=0.007), diastolic blood-pressure (p=<0.0001), waist circumference (p=<0.0001), waist-to-hip ratio (p< 0.0001), and significantly increased total physical activity (p= 0.001), exercise (p= 0.001), maximum oxygen uptake ( I/min p=0.02, mI/kg\*min p=0.04) and some dimensions of quality of life (EQ-VAS p=0.015, SF-36 social functioning (p=0.05). Closed to significant improvements were shown in BMI (p=0.06), weight (p=0.07), SF-36 physical functioning (p= 0.07). No significant improvements were shown in blood lipids or blood glucose.

#### Conclusions

Lifestyle intervention in primary care target to people at moderate to high risk of cardiovascular diseases resulted in sustained lifestyle changes resulting in favorable influences on cardiovascular risk factors, which remained 4 years after the intervention was stopped.

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#### Patient Education: Participation and Empowerment using a "Health Map and Health Coaching

## KOL Yardena, YAHAV Jacob, AVIV Zohar, CAHALON Sophia, AFTAKER Simha, IZAKOVICH Jana

#### Introduction

Traditional patient education performed by nurses, is characterized by professional authority. In most cases the patient remains passive during the education process. The environment isn't cooperative and thus doesn't encourage the patient to take responsibility for self care. Several reasons for un-effective education using the traditional approach, are: Nursing burnouteducation becomes technical, lack of patient empowerment skills, high patient turnover, "short" length of stay (LOS) accompanied with anxiety and confusion, also known as withholding factors in patient education.

#### Purpose/Methods

②Empowering patients for self care. ②Using patient hospitalization as an opportunity for promoting healthy lifestyle ②Using health coaching skills by nurses, during education ②Using a visual Health Map (presented during the conference METHODS: A coaching workshop for nurses, for promoting patient health skills was issued. The workshop included developing communication skills and using the Health Map as a tool for: promoting healthy lifestyle, encouraging patient dialogue associated with health risk factors and participating in treatment decision making.

#### Results

Patient satisfaction was used for evaluating outcome. The questionnaire (11 questions) was distributed to 100 patients undergoing traditional education (before) and to 128 patients undergoing health coaching education (after). The results demonstrate a significant increase in patient satisfaction (20%-40%), especially in following parameters: patient participation, confidence in treatment, self care initiative and increase in proactive patient education. The Health Map was used as a visual tool helping patients identify relevant health risk factors, stable them and thus promote healthy life style.

#### **Conclusions**

Empowering patients for enhancing self care is an important issue in promoting a healthy life style, starting during his hospital stay and continuing at home. Attaining empowerment goals

depends on using effective education methods. Using health coaching by professionals in every "treatment opportunity", allows a teaching and pleasant environment for both nurse and patient . Our hospital raised the banner for health promotion, using the Visual Health Map, carrying the slogan: "Your Health is in Your Hands".

#### Comments

The Health Map will be presented during the conference Detailed results before and after intervention will be presented during the conference.

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The effectiveness of patient management system in health promotion for autoimmune disease patients

#### LAI Ning-Sheng, LIN Ming-Nan, TUNG Chien-Hsueh

#### Introduction

Autoimmune diseases are uncommon diseases but have serious impact in patient's health. Autoimmune diseases include systemic lupus erythematosus, rheumatoid arthritis, ankylosing spondylitis, etc. They could involve all body systems and influence quality of life in minor cases and cause disability, even death in severe cases. However the compliance and adherence to medical care was poor for patients with autoimmune diseases. Many patients seek for traditional or alternative therapy. The reasons of poor compliance were mainly due to poor understanding of diseases and fear of drug related adverse effect. Hence, to increase the individual patient's understanding of self diseases and drugs, we introduce the patient management system. By patient-tailoring education and follow-up, we could improve compliance and adherence in patients with autoimmune diseases.

#### Purpose/Methods

We established the patient management system for autoimmune diseases in our hospital. For patients fulfilled the criteria, including fresh case, cases with poor understanding of self disease, poor compliance to drugs, poor adherence of OPD follow up, we introduce the system to manage, educate and follow up those patients. A well trained health educator and computer system responsible for the patient management was arranged. After our management, the OPD adherence rate, satisfaction rate, and re-admitted rate and self disease-drug understanding rate was evaluated.

#### Results



After we started the patient management system in our hospital since 2010, till now total 823 patients was included with average 8803 patient-time medical education each year. The OPD adherence was 84.65%. The satisfaction rate was 89% and readmitted rate in patients with systemic lupus erythematosus and rheumatoid arthritis was less than 2.5%.

#### Conclusions

Ordinary population has poor understanding to autoimmune diseases. Therefore the patient's compliance and adherence was low. By establishment of patient management system, we hope to change the medical behavior, introduce better disease control, healthy lifestyle and to decrease complication. By this model, we hope to help the patients return to their ordinary life as soon as possible and have been no longer bothered by their diseases.

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## From guidelines to practice, building capacity of clinicians to deliver effective health promotion

#### **NELSON Cathy**

#### Introduction

In 2010 the South Australian Dental Service developed and implemented Health Promotion Practice Guidelines after an audit demonstrated that staff needed a greater understanding of health promotion principles and effective practice. The first step in building their capacity was to focus on clinical prevention, increase patient health literacy and improve patient centred care. A literature review demonstrated that using Motivational Interviewing and increasing staff understanding of the impact of the social determinants were effective in improving clinical health promotion practice.

#### Purpose/Methods

In 2012-13 all clinical staff undertook two training sessions. They were introduced to the philosophy of Motivational Interviewing (MI) as a technique to increase patient involvement in decision making and Health Promotion in the Clinical Setting to provide a greater understanding of effective clinical health promotion. The training was conducted over a 12 month period using MI and Health Promotion experts. Senior clinical leads have since undertaken further training to provide mentoring for coalface clinicians to embed the practice.

#### Results

Training was provided to over 250 clinical staff, including dental assistants and receptionists. Staff completed checklists over three months to ensure they maintained their practice change and discussions were included in staff meetings. Clinical Leaders mentored clinical staff and ensured practice changes occurred. Health promotion staff followed up with visits to all staff and

provided written resources to support practice change. In depth interviews were conducted with 16 practitioners who had undertaken both training sessions to determine changes in practice.

#### Conclusions

All respondents were positive about opportunities to improve their health promotion practice. They reported an ability to work better with patients from different backgrounds and to deliver effective health promoting practice. Most respondents reported using MI with changes centred on building rapport and developing empathy, giving advice only with permission and aiming to increase patient self-efficacy. Benefits included more client-friendly services and improved health literacy. These were believed to lead to more commitment to change behaviour and less failed appointments.

#### Comments

This presentation builds on the the work presented in Taipei 2012, when the guidelines were first presented. It shows the committeent of the SA Dental Service to monitoring and continuous improvement of health promotion practice.

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### Medical emergency response starts in you!

### DEPARTMENT Marketing and Communication

#### Introduction

"Medical emergency response starts in you!" (translated from the Portuguese "A Emergência Médica começa em Si!") is a strategic communication plan developed by INEM. The aim is to get closer to the citizens through Corporate Communication. INEM uses various communication channels to disseminate significant information about medical emergency in Portugal.

#### Purpose/Methods

INEM has developed several communication channels, which are constantly updated with useful information about medical emergency and health issues: a new institutional website that contains 3 microsites (Intoxications, INEM Kids and Statistics), an online TV channel "INEM TV", a digital newsletter, a new institutional video and a new organizational slogan that empowers citizens: "Medical emergency response starts in you!" . INEM is also focused on social networking: Facebook, Twitter, Youtube and Instagram.

#### Results

In 2012, INEM's website has received 211.860 visitors. INEM's digital newsletter is sent to 6000 readers. Currently, these are the fans and follwers of INEM's social networks: Facebook - 47.736

fans Twitter - 1.228 followers Instagram - 322 followers Youtube -597 subscribers and 180 135 video visualizations.

#### Conclusions

Since INEM has a substancial presence in social networks, its messages are reached by a large number of people. This project represents a benefit for INEM's performance, since it can improve the general knowledge that Portuguese people have about the emergency medicine services and how to use it properly.

#### Comments

INEM wants to be recognized as a credible and transparent public institution, which seeks daily to overcome and improve its practices. This policy meets perfectly INEM' values: Competence, Credibility, Ethics, Efficiency and Quality.

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## Session O3.2: Mental health promotion – health promotion in mental services

Selective prevention interventions for risk management in users with psychological distress: results of the first experimentation phases.

#### BOSI Sandra, RICCÒ Daniela, CHIARENZA Antonio, FINARELLI Alba Carola, FERRI Mila, RUTA Rosaria

#### Introduction

Health promotion in patients with psychological distress requires proactive medicine and empowerment interventions by the network of operators in the prevention, care and rehabilitation processes. The highest prevalence of early mortality and morbidity in the target is often related to smoking, diet, sedentary lifestyle and alcohol. The intervention involves 12 regions coordinated by the Emilia Romagna Region and experiments with effective methods of access to individual and group selective prevention programs for disadvantaged users.

#### **Purpose/Methods**

3 action lines are envisaged: 1) Training of operators on the motivational approach in supporting change; 2) Policy change actions in the care facilities (Hospitals, Mental Health Departments, Therapeutic communities). 3) Individual and group change support interventions with the contracting of targets relating to smoking, diet, sedentary lifestyle and alcohol

(Behavioural adjustment training in 4 meetings with subsequent follow-up).

#### Results

ACTION 1: Theoretical practical training of 40 operators per area (480 operators) with modules of 10/20 hours; ACTION 2: Approval of 8 context change adjustments with respect to lifestyles; ACTION 3) Individual and group intervention planning for motivated users. The monitoring and assessment indicators refer to the number of: Health operators trained, Intervention protocols activated, Users made aware, Users taken on, Users who have changed at least one risk behaviour at 6-month follow-up.

#### Conclusions

The results make it possible to positively assess the effects of the intervention on the trained operators and the impact on users of their awareness actions on the subject of lifestyles. The data confirm the feasibility hypothesis and the efficacy of health promotion interventions also in care contexts for users with psychological distress.

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A multidisciplinary approach in the treatment and management of patients with Eating Disorders: our experience in Udine

#### CIANO Rossana, ZORATTI Raffaele, SEPULCRI Orietta, PELLIZZARI Jessica, TAM Tatiana, ZUANON Sophia, BALESTRIERI Matteo, ZAPPOLI Erica, CAVARAPE Alessandro

#### Introduction

It is known that Eating Disorders (ED) need a multidisciplinary and integrated approach between the different units involved in the treatment. In our University Hospital in Udine, Italy, we established a protocol for the management of patients with ED, which defines patient's course for each level of intervention (outpatient, Day Hospital -DH-, inpatient) and the duties of each Care Service involved. Different practitioners are involved in this protocol (Psychiatrist, Psychologist, Internist, Nutritionist, Dietitian, Nurse, patients' General Practitioners and Local Health Services).

#### Purpose/Methods

Each patient undergoes a clinical, psychiatric, psychological and dietetic evaluation in order to establish the diagnosis and the severity of the disease. After this evaluation, the case is discussed



collegially and the specific course of the treatment is jointly defined. According to our protocol, the levels of intervention (outpatient, DH, inpatient), the frequency of the specific evaluations/monitoring and the roles of the health structures involved are organized for each patient.

#### Results

Since April 2012, 96 patients underwent combined evaluation for ED: 21 Anorexia Nervosa (AN), 22 Bulimia Nervosa (BN) and 53 Eating Disorder Not Otherwise Specified (EDNOS), including Binge Eating Disorder. 5 AN patients were hospitalized for an average of 34,6 days. Their average BMI at admission was 14,30 kg/m2, and at discharge was 16,45 Kg/m2. 7 patients AN followed a DH, with assisted meals, combined monitoring, Mentalization Based Therapy psychotherapy. 17 AN, 14 BN, 32 EDNOS were treated on an outpatient basis.

#### Conclusions

In our Hospital we deal with all kind of Eating Disorders, and we have prepared a specific approach according to the peculiar features of diseases and patients. As we can see from the data showed above, especially people with Anorexia Nervosa need a stronger approach (for example, in a Day Hospital setting) and, in some cases, also an hospitalization.

#### Comments

Our experience demonstrated once again the necessity and utility of organizing a multidisciplinary approach to manage the complexity of this kind of patients. At each level of intervention it is fundamental the presence and participation, in a cooperative way, of all the specific figures involved in the therapeutic program of cure, especially for the most difficult and severe patients.

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## The management of BPSD in people with dementia: experience of an Alzheimer's Special Care Unit

## FABBO Andrea, BONORA Annalisa, DE VREESE Luc Pieter, DE LUCA Maria Luisa, MARCHESI Cristina

#### Introduction

The natural course of dementia is associated with the presence of behavioural and psychological symptoms (BPSD), that are the major cause of burden both for the patient and for the family caregiver. Although home care may be the preferred choice for many families, staying at home may not be a realistic option for many persons with dementia, especially in the late stages of the disease or in the presence of BPSD. Thought there are no RCT's comparing Alzheimer Special Care Units (SCUs) to traditional

nursing homes (NHs), many observational studies reported the benefit of a caring program that include the staff training, special planning, an adapted physical environment, and caregivers involvement

#### Purpose/Methods

Our SCUs, founded in 2001 in the setting of a traditional NH, has peculiar characteristics, such as the adoption of a person centred approach and organizational program, use of comprehensive geriatric assessment tailored on residents with dementia and BPSD, training for formal careers oriented to learn specific stimulation techniques (occupational activity, ROT) and to prevent burn-out. The SCUs provides temporary admissions to dementia patients to study problems and find proper solutions especially working with non pharmacological strategies like gentle care, occupational therapy and multisensory stimulation.

#### Results

The analysis of benefits was based on a multidimensional evaluation of patients obtained by comparing the data at the entrance, at discharge and at periodic follow-ups (6, 12, and 18 months after discharge). Among other data we measured the NPI scores (Neuropsychiatric Inventory) and the consumption of sedative drugs. Patients had moderate-severe dementia diagnosis and behavior disorders for an NPI score higher than 24 at the entrance. The study was developed on 63 cases: 71% of the people hospitalized in the NA was discharged with a domiciliary project. The comparison made between the average NPI scores obtained at the entrance (44.66) shows a significant reduction in behavioral disorders at discharge (30.45, p <0.05) which was maintained at a distance of 6 (28.81; t = 3.663, p <0.05) and 12 months (21.29, t = 2.743, p <0.05).

#### Conclusions

Our experience suggests that specific person centred programs in a adapted environment, together with caregivers involvement, seems to be a useful and effective model of care for persons with dementia and severe BPSD and it is possible to plan a home care for dementia patients . This is promoted in the dementia care unit by the prevention of situations that can generate agitation and aggression in these people. These benefits seem to last even after a period of 12 months after discharge. Further studies are needed, in particular RCT, to confirm the results.

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Case Management Program for patients discharged from an emergency department after a suicide attempt

#### PONS BAÑOS Judit, RIERA BIGAS Marc, RIESCO MIRANDA Lola, BLEDA GARCIA Francesc, ARRUFAT NEBOT Francesc Xavier

#### Introduction

This program was implemented in Mental Health Service of Consorci Hospitalari de Vic in October 2012. Suicide attempt is the most predictive factor to suicide since 50% of deaths by suicide had previous suicide attempt. There are several studies demonstrating effectiveness of psychiatric telephone contact programs after discharge, reducing suicide retry attempts and promoting therapeutic compliance. The aims of this presentation are to describe the functioning of the program and to explain health outcomes of the first year of implementation.

#### Purpose/Methods

Patients admitted to the psychiatric unit are excluded as well as patients in intensive psychiatric health programs. Rest of patients are admitted (in all cases voluntary). The program consists in a first face visit the following week after the suicide attempt. Then, there is a telephonic visit at the first month, at 3, 6 and 12 months after suicide attempt. In all visits suicide risk is evaluated and the patient is sent to the most appropriate health service.

#### Results

93 suicide attempts were registered in a total of 81 patients. 75% of the candidate patients were included to the program. 2.12% of the patients included in the program retried suicide attempt while 20.58% of the patients not included retried. 12 patients were discharged from the program.

#### Conclusions

A rise of cases is expected because the suicide attempt register might be incomplete (there isn't an automatic register and it depends of the manual registration of the cases by the emergency psychiatrist). Effectiveness of the program is demonstrated given the number of suicide retry attempts of the patients admitted in the program compared to those who are not.

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Early support for mental health as part of the service path of a pupil in the secondary school

#### RAJALAHTI Elina, TUOHIMAA Hanna, LEMSTRÖM Ulla, MATTILA Paula

#### Introduction

In Finland, new ways of supporting the youth in their life are sought, with an emphasis on low threshold services and cross

sectoral collaboration. In this presentation we describe a pilot study and its evaluation in one secondary school in southern Finland where two pairs of nursing students held an open practice for the pupils for 10 weeks each. The Finnish youth attend to secondary school for three years at the ages of 13 to 16

#### Purpose/Methods

The purpose was to develop an early support model for mental health and offer a low threshold service for the pupils with unofficial places for discussions during the breaks. The first pilot phase focused on working with the staff and the second with discussing with the pupils. A two step evaluation was conducted with a survey for the pupils during the first pilot phase and interviews for the staff and the nursing students at the end, analyzed with content analysis.

#### Results

In the pupils' survey (n=100), although positive towards the pilot, only half saw the need to continue the pilot. As the utilization rates of the open practice kept rising it may be that the pupils were only becoming accustomed to the service little by little. In the interviews (n=6), the staff saw the pilot's value in offering easy access early support. However, they were generally more content with the first pilot phase focusing on the interaction with the staff

#### Conclusions

In the open practice, a balance is needed in working with the staff and taking direct contact with the pupils so that everybody benefits from the service. In the early support model development work, the emphasis on resources and strengths available for each individual student was considered as an important starting point in supporting wellbeing in a proactive way. Practical issues such as the clarification of confidentiality obligations were seen as key questions in achieving seamless services for the pupils.

#### Comments

Keywords: the youth, health promotion, mental health, early support Have you any conference publication, in which we should write an article?

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## Session O3.3: Making hospitals and health services environment-friendly

Systematically Implement
Environmentally-Friendly Hospital



#### CHEN Chun-Po, SIE Ning-Huei, LIN Ming-Nan

#### Introduction

Hospitals consume a large amount of energy in providing health care which may cause climate change and some related health problems. The missions of hospitals are rescuing life and promoting health. It should waste no time in fighting against health problems caused by climate changes. How to reduce the use of water, power and other resources and to reduce the amount of waste are important issues that the health promoting hospital should work on.

#### Purpose/Methods

We systematically implement environmental-friendly hospital with 10 strategies which were published by Health Care Without Harm. The 10 strategies contain leadership, waste, water, energy, food, transportation, purchase, building, pharmaceutical and education. We have trans-departmental committee that makes overall arrangements for environmental related issues and the chair is the Office of Superintendent. Moreover, the Taskforce of Environmental Education belongs to the committee and initiates environmental education issues so that we can enforce the program of environmental friendly hospital all over the hospital.

#### Results

Under the supports from the management level, we enforce systemically the environment related program. We use reusable items whenever feasible. The reusable chopsticks usage is more than 5 million pairs in 12 years and reduced 20,738 kg wastes, also successfully cut down on the amount of medical waste production from 1.74kg/bed to 1.61kg/bed per day. Implementing energy efficiency and clean, renewable energy generation, the water heating systems produced hot water by absorbing surrounding heat, saving 6,018,147kW.h of electricity and reduce 3 million kg of CO2 annually. There is 30% of the total water used per year was from recycled water, which is equivalent to 88,800 tons and saves NTD 1 million per year. Providing free shuttle buses could reduce 1,26million kg CO2 produced by public transportation per year and telemedicine in the mountain area. We have been offering plant-based diet since the opening of the hospital which reduced more than 4 billion kg CO2 emission. Moreover, we also provided hospital-wide in-service education to employees, patients, community and through recycling, lectures, posters, workshops, discussion and demo.

#### Conclusions

It is truly believed that by teamwork from an individual level to an organizational level, we can change the healthcare institution from a huge energy consumer to an environmental protector. We work for environmental protection and work towards a healthy, environmentally friendly workplace with a simple and purified mind and hope restore our environment to its original beauty.

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## Challenges and solutions in designing and building an environmentally-friendly public hospital in Singapore

#### **TAI Stewart**

#### Introduction

Khoo Teck Puat Hospital (KTPH) is a 590-bedded general hospital in Singapore that opened in 2010. Energy efficiency and water conservation were priorities in its design and construction to address environmental and national challenges as well as to reduce the carbon footprint. With daily temperatures of 28-34 degrees Celsius, controlling heat and humidity are a priority to create a comfortable environment for patients and staff. Water conservation is mandatory in commercial building design because 75% of Singapore's water is imported.

#### Purpose/Methods

To reduce the load of the air-conditioning system, the hospital was built in a northeast-southwest orientation next to a pond to reduce exposure to direct sunlight and improve natural ventilation. Great care was taken in the choice of air-conditioning equipment to ensure it was energy efficient and reduce water usage. The design of the building included low emissivity glass and wind catchers to further reduce air-con usage. Roof top gardens lower indoor temperatures and these are irrigated using pond water.

#### Results

An audit by Singapore's Building Construction Authority (BCA) has shown KTPH is more than 33% more energy efficient compared to a code compliant building. These green initiatives have also resulted in annual cost savings of SGD\$1 million (approx. US\$0.8 million) on utility bills. The hospital was awarded the Green Mark Platinum Award by the BCA – this is equivalent to the highest rating in the USA's LEEDS green accreditation system.

#### Conclusions

Identifying the most energy intensive usage within the hospital at the design stage was critical to the success of this project as it affected all decisions. Equipment was carefully sourced to ensure it would be as energy efficient as possible even though it cost more at the outset. The additional cost is expected to be recovered within 10 years through savings on utilities bills. Therefore green hospitals are a viable option for both healthcare services as well as the environment.

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Health Promotion in the Environment (Power and Water Conservation, Carpooling and Vegetarian Meals) as

### Part of a Systemic Implementation of Health-Promoting Hospital Concept

#### CHEN Joyce, YANG Ming Chorng, YANG Po-Hsun, CHANG Yuh-Lin, HOU Chun-Yen, CHIANG Li Shin, CHANG Shih Huan, LIN Chin-Lon

#### Introduction

Global warming and greenhouse effect have been linked to climate change and increased intensity of natural disasters. Hospitals generate a significant amount of greenhouse gas that contributes to the rise of temperature. Therefore, how to systematically implement waste-reducing and energy-saving strategies to reduce greenhouse gas emission is a critical and imminent issue for hospitals today.

#### Purpose/Methods

The study aims to examine the effect of various measures to reduce carbon dioxide emission in six Tzu Chi Hospitals, Buddhist Tzu Chi Medical Foundation. The study aims to examine the effect of various measures to reduce CO2 emission in Tzu Chi Hospitals. Hospitals offered pick-up and carpooling services. In addition, hospital food services only provided vegetarian meals. For power and energy savings, hospitals installed energy efficient light fixtures, power saving control of air conditioners and heat recycling system. Recycled water and underground water were used for plant irrigation. Osmotic brick collected rain water and water-saving facilities were installed to further reduce water usage.

#### Results

As a result of a combination of the strategies used, carpooling and vegetarian meals reduced approximately 8908 metric tons of CO2 emission per year. Power and water conservation efforts reduced approximately 24,300 metric tons of CO2 emission yearly. The amount of CO2 reduction was estimated to be an equivalent of 26,401 acres of U.S. forests in one year.

#### **Conclusions**

We believe that our strategies in reducing carbon dioxide emission from six hospitals have contributed to the efforts in slowing down the rate of global warming and climate change.

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#### Garbage makes the difference

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MAGGIORE Adele, CROCI Eleonora, NEAMI
Nicoletta, PARISINI Dario, BRECEL
Antonella, GRIM Antonella, LAURENI
Umberto, ZOLLIA Vittorio, STEFANI
Maurizio, DALMASO Paola

#### Introduction

National and international sensitivity and regulatory developments are emphasizing the policies of waste production minimization, especially undifferentiated, to allow a sustainable use of resources and minimize environmental impact and pollution. In this context our local Public Health Service ASS n.1 "Triestina", in collaboration with local stakeholders has engaged in several projects with the aim of spreading to citizens a culture of protection and enhancement of nature and environment through a correct waste management.

#### Purpose/Methods

Realized projects: Prevention and education Agenda 21, project directed towards all schools, within Agenda 21, action plan for sustainable development, realized on global, national and local scale with involvement of various stakeholders. The project regards: environment study, activities such as educational laboratories and differentiation of recycling in classrooms. 689 students of 44 classrooms. Ecolaboratory within summer camps Themed events within Project Overnight dedicated to risk prevention in areas of nocturnal social entertainment. The evenings aim (topped up with a competition): to empower youth people regards garbage indiscriminate abandonment (bottles, cans and cups)

#### Results

These projects educate the citizens to the correct management of garbage, to promote a regime of effectiveness, efficiency, economizing and sustainability. The school activities allow the monitoring of produced garbage quantity, by weighing. The data will be made available to administrations to optimize the service managing.

#### Conclusions

Projects in progress: Project "Microarea si differenzia":destined to Microareas residents.Microareas are areas of socioeconomic discomfort where a project of health and community development is active. Realization of the largest mural in Italy (250m2) by 255 children of recreational centers constructed with bottles caps in collaboration with artistic association Melart Competition with prizes "Print your idea in 3D" in collaboration with Theoretical Physics Centre of Trieste:realization in 3D of objects designed by high schools students and made with recycled plastic.

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## Session O3.4: E-Health – approaches towards innovative health promotion

### Digital skills to widen participation – increase health literacy

#### **GANN Bob**

#### Introduction

Healthcare is increasingly digital. Information on health promotion & disease management is increasingly accessed online. And healthcare systems are increasingly encouraging digital access to health records, appointment bookings and medication requests. Yet the people who most need these services are exactly those who are least likely to be online. In England 8 million people have never used the internet; they are very likely to be older, living with long term conditions and disabilities, or experiencing social deprivation and health inequalities.

#### Purpose/Methods

The Widening Digital Participation at NHS England was launched in October 2013 with the objective of supporting and training people to get online for the first time so that they can participate more actively in their own health and care. Methods include an online training programme in basic digital literacy skills and online health information resources; a network of local online access and support centres; & involvement in local primary care & community health initiatives

#### Results

Results are preliminary at time of abstract but there will be much fuller evidence of adoption and impacts by the conference in April. Already 35,000 local people have been trained in digital skills for health & many are reporting significant benefits in healthy lifestyles, more informed use of services, and appropriate self care. The programme is being included in local health initiatives including social prescribing in primary care and discharge planning for older hospital patients

#### Conclusions

Barriers to use of digital health information and services include lack of access, lack of skills and lack of motivation. The Widening Digital Participation Programme is boosting digital health literacy through provision of access to technology in supported settings, training in digital skills, and creation of case studies and user stories which can demonstrate the benefits and motivate others to get online for health.

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### Structuring the Electronic Medical Record for Prevention

#### **PERREAULT Robert**

#### Introduction

Medical prevention and health promotion guidelines are published on a regular basis by learned societies. Updating and remembering to provide the appropriate services to patients poses difficulties. Well-designed electronic medical records (EMRs) have been shown to greatly improve compliance. In Canada, few EMRs offer appropriate built-in modules to manage prevention. The present contribution is an attempt to stimulate the integration of a dynamic, centrally updated clinical prevention module into current and future EMR offerings.

#### Purpose/Methods

Quebec's College of Physicians and Montreal's Public Health Authority review prevention guidelines on a regular basis. To improve sustainability, specifications for the inclusion of the guidelines into accredited EMRs were created. The operation comprised four stages: positioning prevention requirements in the Ministry of Health's accreditation process for EMRs; development of a Specifications Document identifying core functionalities, representing guidelines as algorithms; validation by Expert physician and IT groups; publishing the specifications as an adjunct to the four accreditation requirements.

#### Results

Accreditation involved many formal administrative steps. It was well received but its progress from a regional initiative to a ministerial directive required the approval of provincial public health, primary care and IT authorities. The "translation" process of the guidelines into algorithms forced many ambiguities into the limelight and helped reduce uncertainty. The validation was fruitful but evidenced a need for serious improvement of the current EMRs as expert users complained of having to find workaround solutions to overcome design problems.

#### Conclusions

The initiative showed that the medical community can in fact become a more influential partner in the development of meaningful use tools for EMRs. The process involved the College of physicians, Public Health professionals, expert physician users, IT specialists, government authorities and ultimately will affect the EMR development community. The specs will shortly be published on a website accessible to both physician and vendor communities where the prevention updates will be accessible in real time.

#### Comments

Active participation in the development process of clinical tools is needed if we are to fully integrate prevention and health promotion in clinical practice. The present initiative covered prevention guidelines integration. Future developments should also cover patient reported outcome measures (PROMs) and patient reported experience measures (PREMs) if we are to cover the full spectrum and offer timely, appropriate and meaningful prefention and health promotion services at the individual level

and look toward the integration with upcoming personal health records.

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#### Lifestyle Medicine Clinic at Hospital

#### SIU Alan

#### Introduction

Research shows that leading a healthy lifestyle not only helps in the treatment of chronic conditions, but also brings about immense health benefits. The Lifestyle Medicine Clinic combines expertise in evidence-based nutrition, stress management, and behavioral health interventions to support you on your path to good health. Through lifestyle interventions, the clinic aims to control and manage chronic conditions, promoting optimal physical, psychological, and social well-being.

#### Purpose/Methods

Depending on each patient's needs and condition, our physicians or registered dietitians may also recommend lifestyle programs or services offered by the Lifestyle Management Center. These services are tailor-made to suit each individual's condition and daily schedule, and aim to help clients lead a healthier lifestyle. They include Initial lifestyle assessment, consultations with physician and dietitian, plus a 3 months follow-up program by cell phone.

#### Results

80% clients follow lifestyle physician and dietitian suggestion. 60% clients use cell phone to photo record every meals they had, and exercise they did everyday, and sent to dietitian for analysis and immediate respone.

#### **Conclusions**

Besides typical hospital services, Lifestyle medicine clinic is an important part at hospital to improve patient's lifestyle. Use model technology such as smart phone photo record and communication is an effective way to follow-up individual client.

#### Comments

Lifestyle medicine clinic provide in-serive to hospital doctors and nurse, which can Stregthen doctoral referal system.

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## Superior mobile EHR in tablet Computer- three year experience un Taiwan

#### LO Cheng Chin, HUANG Min Ho, HUANG Jing Yuan, HUANG Kuan Kai, LIAO Ya chiu

#### Introduction

Superior mobile EHR (aka mobile EMR) was first developed and used in our health system, Taiwan, two months after the introduction of iPad1 in the united states. Superior mobile EHR has integrated the meaningful use information for clinical use in iPad with group MMS function to send images and laboratory information to associate medical professional group simultaneously.

#### Purpose/Methods

los tablet device was Chosen. Native objective C and web service were used in the beginning whereas web services shift to Webapp in the recent version. Medical records, nursing records, vital sign, laboratory, images and report information as well as prescription from CPOE will be displayed on the devices. Questionaires was done over the doctors, nurses and patients and their family.

#### Results

Version one with web service has been used by doctors and nurses in Show Chwan health system since 21st June 2011, 2 months after iPad1 launched in the United states. Version 1.1 based on native objective C as well was developed 2 months later More than 80% physicians, nurses, patients and their family satisfied with the overall User interface over the web service whereas 85% satisfied with the ios version.

#### Conclusions

Superior mobile EHR also has helped Show Chwan Health system won three consecutive years of awards in terms of innovation, physician assistant and enhancement of medical quality. It also dramatically shorten the communication gap between the medical professionals and the patients or their family due to its mobility and images.

#### Comments

Health level seven(HL7) communication has been used and editing of images and notification among different groups has been tried recently in the newest version.

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## Session O3.5: Promoting health by physical activity



## Physical activity on prescription after cystectomy due to urinary bladder cancer – Describing a new approach

#### **PORSERUD Andrea**

#### Introduction

Patients who undergo radical cystectomy due to urinary bladder cancer often have a poor performance status before surgery. Physical activity improves physical function, both during and after treatment, why physical activity is important to these patients. Before year 2012, the patients received information about the importance of daily walks at discharge. However, the physiotherapists experienced that the patients had difficulties to absorb the information. Physical activity on prescription is an evidence based method to increase physical activity with individual counseling.

#### Purpose/Methods

Patients will receive physical activity on prescription and also understand the importance of physical activity and achieve optimal level of physical activity. Patients who have undergone cystectomy at Karolinska University Hospital 120301-131130 have received physical activity on prescription. To involve the patients, a behavioral medicine approach has been used. Most patients have had daily walks prescribed. Due to the organization structure, the patients have been instructed to call the physiotherapist at Karolinska University Hospital for a follow up call.

#### Results

During the period, 140 patients had physical activity prescribed to them. Only a few patients have called for follow up, why it is not possible to evaluate their level of physical activity.

#### Conclusions

The method with physical activity on prescription has shown to be applicable to this group of patients, since many patients have received a prescription. The physiotherapists have experienced that the patients understand the importance of physical activity better than before. However, only a few patients have called for follow up, why the organization should be restructured. During year 2014 a new project with follow up call from physiotherapist at Karolinska University Hospital will be evaluated.

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The efficacy of the global corporate challenge as a strategy for health promoting organisational development

#### **WALSH Kerry**

#### Introduction

The Global Corporate Challenge (GCC) is a team based 10,000 steps physical activity and lifestyle program taking participants on a virtual journey around the world. In 2012, 49 Ballarat Health Services (BHS) self-funded employees took part in the GCC. In 2013 BHS supported employee participation by subsidising the cost by 40%. Participation levels went from 49-630 employees, with good representation from across most departments. Over 500 Australian workplaces, and 1200 worldwide took part in the GCC in its 10th year

#### Purpose/Methods

The GCC was selected by BHS as a key strategy to address issues identified in the BHS Work Health Checks undertaken by 1100 staff. The results indicated that a significant proportion of staff (74%) are not sufficiently active, and that dietary intake of fruit and vegetables was less than recommended (41% and 78% respectively). The GCC was chosen on the basis that it was evidence based, focused on long term behaviour change, and was appealing, fun and easy to implement.

#### Results

In 2013 BHS received Australia's GCC "Most Active Organisation"
Award. The Foundation for Chronic Disease Prevention in the
Workplace reported the following participant outcomes: •
84% now meet or exceed the 10,000 step
recommended daily activity level (pre-GCC 21%) • 83% now
rate their overall health as good, very good or excellent (pre-GCC
59%) • 55% lost weight, average weight loss was 3.9kg •

83% rated their GCC experience as either good or excellent and 90% indicated they would participate in the GCC again.

#### Conclusions

These results potentially represent a significant return on investment. A critical reflection of the initiative based on health promotion principles and recommendations for the future will be presented. The following questions will be addressed — did the GCC: • elicit management support? • reach a broad range of employees and those with greatest potential to benefit? •

build links with local initiatives and regional, state or national programs? • create sustainable improvements in physical activity levels? • change health service culture to better promote health?

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Physical activity in Estonian patients with early rheumatoid arthritis

### PÕLLUSTE Kaja, MÜLLER Raili, KALLIKORM Riina, LEMBER Margus

#### Introduction

Regular physical activity (PA) is recommended for patients with rheumatoid arthritis (RA) to reduce pain, improve physical as well as mental health, functional ability and prevent cardiovascular disease. So far, there is little evidence about PA among the Estonia RA patients. In 2012 the researchers from the Department of Internal Medicine at the University of Tartu started a prospective study to investigate the health outcome and factors associated with it in a cohort of patients with early RA attending in Tartu University Hospital.

#### Purpose/Methods

The purpose of this study is to describe associations between PA and health status and disease activity in patients with early RA (disease duration up to one year). During 2012-2013, altogether 77 patients (of them 56 female) aged 19-80 (mean 51.8 years) were recruited. All patients underwent clinical examination; data about functional disability (HAQ 20-Item Disability Scale) and disease activity (DAS28-CRP) were collected. The type and level of PA was assessed with the short form of International Physical Activity Questionnaire (IPAQ).

#### Results

The mean score of MET-minutes per week was 3449.7, DAS28-CRP 3.79 and HAQ 0.87, 24% of the respondents reported low PA (of them seven reporting no PA), 30% moderate PA and 46% high PA; walking was the most common type of PA reported (68%, 70% and 38% for the respondents with low, moderate and high PA, respectively). No associations between PA and disease activity, functional disability or patient's background variables were found.

#### Conclusions

Mean physical activity level of early RA patients participating in the study was high – IPAQ score 3449 MET-minutes per week, there were no associations between PA and disease or disability status. Through optimal control of the disease it is vital to maintain the physical activity level observed in the early stage of RA

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"The stairs. Music for your health": an integrated approach to promote a daily physical activity

FINARELLI Alba Carola, VALLETTA Luana, ARLOTTI Alberto, SGARZI Davide, BALDASSARRI Btuna, SIROTTI Fabio

#### Introduction

In the Emilia-Romagna Region (northern Italy, 4,500,000 inhabitants) the 63% of the population doesn't meet the WHO recommendations for Physical Activity. The Regional Plan for Prevention 2010-1013 includes, among other interventions to promote physical activity, a specific regional campaign aimed at the entire population to promote the use of stairs. The campaign, titled "The stairs. Music for Health", was started in January 2013 and takes place in hospital, in a different local health service buildings, municipalities, etc.

#### Purpose/Methods

The campaign aims to improve the knowledge of the importance of regular physical activity and to facilitate different people to adopt easy healthy behaviours in everyday life, in particular regarding the use of stairs. Specific posters, brochures and totems were located in the decision points within the buildings concerned. The Regional Health Head Office (RHHO) is responsible for the organization of the campaign and has benefited from the fundamental collaboration of ANCI (National Association of Italian Municipalities), UPI (Union of Italian provinces), local health services and other local organizations. The campaign evaluation plan was prepared by the RHHO through several assessment tools like as observations pre and post campaign, questionnaires and empowerment evaluation tools.

#### Results

Early results can be considered: a) the campaign took place in all the buildings of the most part of the municipalities and in all the buildings of the Regional Health Service; b) the strong networks of central and local level between components of the regional health service and local authorities that have been developed; c) several concerning newspaper articles, videos and activities that have been produced at the local level. The main result of this campaign is, perhaps, building strong networks of local and regional multi-disciplinary and multi-sectoral working together (this intervention has also led to organize training for preparatory and evaluation activities of the campaign).

#### Conclusions

The necessary development of interventions to promote the health of the population requires the development of new methods of organization, methods of work and networking. The campaign for the Region represents an important example of work to analyze and improve.

#### Comments

The actions of the promotion of health can be more integrated in the daily life of the people through easy actions in all the contexts where the people live.

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# The Effect of Functional Fitness and cognitive training of Physical Disabilities of Long - term Care Institutions

### YEH I-Chen, LII Jong-Yiing, TAI Yao-Chung, WU Ching-Jui, LIAO Hui-Yen

#### Introduction

According to an investigation done by Taiwan Ministry of the Interior in 2013, there was more than 90% of the disability care institutions mainly based on life care. Previous studies have shown that, individuals can effectively improve physical and cognitive training, improved in independent living and everyday competence. The purpose of the study was to investigate influence of the intervention program applying functional fitness and cognitive training to disabled residents in the institution.

#### Purpose/Methods

The subjects were disabled persons of a care institution in southern Taiwan, and were randomly divided into training and control groups, both having 17 subjects. The age of the subjects was between 56 and 98 years with a mean age of 79.08  $\pm$  10.04 years; the subjects of training group implemented 12 weeks of training on physical and cognitive training, while the control group subjects did not have any training program.

#### Results

The results revealed that, subjects of the training group have significantly improved their functional shoulder rotation flexibility of left and right, anterior hip muscle group flexibility of right, sitting functional balance of left and right, naming, attention, delayed recall, orientation, and Montreal cognitive assessment (MOCA) .

#### **Conclusions**

The study suggested developing physical fitness programs and physical and cognitive prescriptions for the disabled people of the institutions.

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## Session O3.6: Improving salutogenic workplaces in healthcare II

## Are you an ALLY?: Ensuring a healthy, equitable and accessible hospital workplace

### KANEE Marylin, TEKLU Moya, KELMAN Irit, ATUNGO Simone

#### Introduction

Research demonstrates hospital staff may experience discrimination in the workplace based on race, gender, sexual orientation, disability, etc. Located in one of the most diverse cities in the world, our Hospital launched a campaign to encourage persons in the hospital community to be allies to one another, focusing on people with mental health issues; people with disabilities; racialized people; gay, lesbian, bisexual people; trans and intersex people. The goal is to ensure healthy, equitable, accessible hospital environments for all.

#### Purpose/Methods

Led by committees comprised of staff, patients and community members, the campaign includes posters, workshops and videos that help staff recognize acts of discrimination and take action to support members of marginalized groups. Staff learn about the experiences of people who face discrimination and what concrete steps they can take to support human rights. At hospital events speakers share their experiences of what it means to be, or have an ally in the health care system.

#### Results

Focus groups and e-learning evaluations were undertaken to assess the effectiveness of the ALLY campaign. Most participants spoke of an increased consciousness of the need to act in situations of discrimination or harassment. They felt that the training materials were empowering: in future they would be more aware and would have more confidence about intervening. Rather than create defensiveness, understanding one's privilege allows an opportunity to use that power to create change for colleagues and patients.

#### Conclusions

The post-training results clearly demonstrated new and effective learning. Participants found most effective the combination of training materials with skilled facilitation and practice in interrupting situations of harassment and discrimination. The ally videos were described as very powerful, engaging, beautifully filmed, insightful and inspiring. The videos said "Change can happen - this is how you become an Ally". They are an essential component of ALLY Campaigns that will initiate important conversations within hospitals.

#### **Comments**

This will be an interactive presentation that will include a screening of an ALLY video and an overview of exercises and tools we use to educate hospital staff about the ally campaign. Participants will be oriented to the Are you an ALLY? website as a resource for their own ALLY campaigns.

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Aging at work: the human management challenge in Health Services

#### **TOVOLI Daniele, PERNA Anna**

#### Introduction

One of the main issue in Italian NHS is the increase of professionals aging and the extension of their working life: spending review, welfare reform, life extension are probably the main causes of this phenomenon and can leads to serious problems non only in human resource management, but also in other aspects like quality of services, safety of professionals and patients too. In this contest we investigated attitudes, wishes, suggestions, opinions of seniors workers in a way to set up new organizational models for human management during working life, transforming human capital to add value for the organization.

#### Purpose/Methods

Broadly speaking the actions are divided in four steps: 1.

Questionnaire Elaboration and administration to seniors professionals >50 years old, about 1560 people 2.

Collecting data and analysis 3. Make equity profile of the professionals 4. Make Focus groups with professionals close to retirement or recently retired to better understand the priority items

#### Results

Results were quite different between Heads of Unit or clinician and nurses. The firsts complain lack of time to transfer knowledge, feel their working condition worsening and a decrease in motivation, but they feel in good health and still useful to the organization. Conversely the majority of nurses complain about workload, some health problems, motivation decrease, professional conflicts, difficult to communicate with physicians. Concerning the equity profile female represent 75,8% of population, the main range age group is 45-55, the men working age is 20 years, and there is no migrant people and disabled workers.

#### Conclusions

Relaying on this data in the Bologna Local Health Unit started up to now two project: one to improve the management of elderly workers regarding above all work load and shift work, and the other one to promote working in groups and a better communication way between nurse and Physician, reserving time and a place of discussion at shift change, supported by tutors. Work are in progress to set up new actions using the data analysis.

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#### Wellness program for hospital staff -- Healthy Team 20

#### **WU James**

#### Introduction

To be a successful health promoting hospital, helping employees to practice a healthy lifestyle is a corporate investment and assets. Hong Kong Adventist hospital has been developing an intensive Lifestyle program for employees called Healthy Team 20 (HT20), a team of around 20 staff will go through 4 levels of well-designed Lifestyle programs within a year. Through hospital administration support, evidence based lifestyle program, and effective case manager to monitor each team, a healthy workforce is created.

#### Purpose/Methods

To motivate hospital employees to participate wellness, and to adopt a persistent healthy lifestyle. Methods: level 1 is a Basic Theory Section, which includes health risk assessment and simple blood test, online education, and individual goal setting. Level 2 is Advanced Practice Section includes workshops of nutrition, exercise and stress management, plus a Wellness Day. Level 3 is an Intensive Wellness Live-in Camp for behavior change. And Level 4 for Individual Follow-up by a case manager or coach.

#### Results

90% employees aware HT20 lifestyle program through in the hospital. Seven teams were successfully formed which include hospital administrators and front-line employees. Participation rate was 60% of team members finished level 1, with a personal wellness profile and completed lifestyle assessment. Level 2 to 4 slowly declined to around 40% for a year.

#### Conclusions

HT20 is a wellness programs for hospital and corporate employees. 1. The role of the case manager or coach with proper training and handbook. 2. The incentive system must be well planned and implemented. 3. Using the technology and webpage system is effective. 4. The 80-20 Pareto's principal is used. 5. To work closely with HR and OSH for collaborative activities.

#### Comments

Sharing the hospital model with other corporations, making healthy staff and healthy community to be realistic.

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## Developing a more salutogenic workplace for nurses: compatible practices

#### **BILTERYS Robert, DEDOBBELEER Nicole**

#### Introduction

Healthcare staff, particularly nurses, is one of the most challenged groups of employees. In Canada, like many other Western countries, nurses' workplace is an important issue. To improve their working conditions and the quality of care, one of the largest University Hospitals in Canada decided to implement the WHO Health Promoting Hospitals project (HPH), and particularly its dimension related to workplace health promotion. This hospital is a member of the Quebec Network of Health Promoting Institutions.

#### Purpose/Methods

Our objective is to present some of the results of a case study designed to better understand the implementation context of a health promoting workplace for nurses. Semi structured interviews were conducted with directors and nurse managers to assess their perceptions about the implementation. A questionnaire was also administered to several strategic stakeholders of the University Hospital, in order to measure the compatibility of existing organizational practices with the criteria of a 'health promoting workplace' for nurses.

#### Results

Results show a discrepancy between perceived and measured compatibility. Indeed, participants perceived few organizational practices are compatible with the criteria of a health promoting workplace. However, our data show many existing organizational practices are compatible with several criteria i.e. learning and performing organization, health and safety, health promoting lifestyles, and social and physical environment changes. Yet, compatibility is weaker for the criteria on a health promotion policy and very weak for nurses' participation to decision making.

#### Conclusions

Our study contributes to a better understanding of the context needed to implement a health promoting workplace. Our results suggest hospitals should examine compatibility prior to implementing. Indeed, it allows getting an accurate picture of existing strengths and weaknesses, and helps collecting data about organizational readiness to implement such an innovation. Finally, our results suggest reinforcing knowledge, communication and training about HPH among both strategic and tactical managers, in order to reduce discrepancies and to achieve successful implementation.

#### Contact: BILTERYS Robert

Université du Québec en Outaouais Roi-René H1K3E8 Anjou, CAN Developing a Catalan questionnaire to evaluate health promotion and safety culture in hospitals

SERRA Consol, BARROSO Sonia, ESTEVE Maria, TORRECILLAS Susana, BRETAU Frederic, CARRERAS Rosa, SUBIRATS Pilar, VILARDELL Miquel, SÁNCHEZ Eugènia, VILLEGAS Sofia, GUIXERAS Assumpció, OLIVÉ Victòria, SANTIÑÀ Manel

#### Introduction

Organisational culture is essential to create and maintain healthy workplaces. Hospitals are health producing institutions and their professionals' occupational health and satisfaction has an impact on the quality of health care. However there is evidence and concern that health promotion and safety culture in hospitals can be improved. A working group of occupational health experts and managers from several Catalan hospitals agreed that interventions are needed to improve health promotion and safety culture, especially related with managers' involvement and commitment.

#### Purpose/Methods

The purpose of this ongoing project is to develop an instrument to measure health promotion and safety culture to evaluate future interventions in Catalan hospitals, through an evidence-based approach. 1) A comprehensive literature review was conducted to identify published questionnaires, using Medline(Pubmed) and independent pairs of reviewers. 2) After designing the questionnaire, based on other existing tools, a pretest to assess its face and content validity as well as its applicability, usability, understandability and preliminary psychometric properties are being evaluated.

#### Results

Two hundred and fifty retrieved citations were screened and 53 met the inclusion criteria for full text analysis. Two instruments were identified: Leading by Example (LBE) and Nordic Safety Climate Questionnaire (NOSACQ-50-Spanish). Both were translated into Catalan from English and Spanish, respectively, using a 4-Likert response options. Twenty-five managers participated in the pre-test. Face and content validity were found appropriate. Participants appreciated its easiness and undertandability. Some questions need revision and previous definitions of health promotion and safety are needed.

#### **Conclusions**

Evaluations of interventions need robust and validated instruments, and cross-cultural adaptation of existing ones seems to be the best approach. To the best of our knowledge, only a few questionnaires are available on health promotion and/or safety/preventive culture in the published scientific literature that could be used in hospitals. The process of cross-cultural adaptation of the Catalan questionnaire is showing promising measurement properties. Reliability assessment by means of

evaluation of the internal consistency and test-retest will be evaluated.

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## Session O3.7: TAT workshop – Promoting Childrens' Rights

Child Right to Health: translating principles into practice

#### Introduction

Chair: Mr. James Robinson, Coordinator of the HPH-CA Task force, University of Edinburgh, Scotland (UK) Dr. Matt Masiello, Director, Center for Health Promotion and disease prevention, Windber Research Centre, Pennsylvania, (USA) Presentations: Prof. Jeffrey Goldhagen, Chief Division Community and Societal Pediatrics, College of Medicine, University of Florida (USA) "Translating Child rights into practice to promote Child health and well-being " Ms. Ilaria Simonelli, Health & Lifestyles Sociologist, Independent Child's rights promoter (Italy) and Mr. Andrew Clarke, Clinical Lead Health Visitor, Paediatric nurse, Lancashire Care NHS Foundation Trust (UK) "The TAT Rights- and Equitybased Platform and Action Cycle" Dr. Les White, Chief Paediatrician of New South Wales Health, Sydney (Australia) and Ms. Ana Isabel Fernandes Guerreiro, Independent Consultant (Portugal) "Implementing principles and models on the Child Right to health and well-being into practice" Prof. Ziba Vaghri, Director International Research and Initiatives Programme Human Early Learning Partnership (HELP) - University of British Columbia (Canada) "Monitoring the respect of the Child Right to health and well-being" Discussion Conclusions and perspectives Prof. Jochen Ehrich, European Paediatric Association (EPA/UNEPSA); Children's Hospital, Hannover Medical School, Hannover, Germany Note: All the speakers are Members of the Think and Action Tank on Child Right to Health (TAT)



# Session O4.1: Assessing and evaluating mental health promotion – health promotion in mental services

A Self-Assessment Tool on health promotion in mental health care settings. The final results of an evaluation study.

#### **GIL Renata, BERGER Hartmut**

#### Introduction

The Self-Assessment Tool with a set of standards for promotion of mental health in psychiatric services developed by the Task Force on Health Promotion in Mental Health Settings are aimed to set framework of mental health promotion. The tool based on the WHO Standards for Health Promotion in Hospitals. The Self-Assessment-Tool should support psychiatric institutions to integrate standards of mental health promotion as a part of quality management and thereby help to improve the quality of mental health promotion activities.

#### Purpose/Methods

The aim of the study was to test the adequacy of the Self-Assessment Tool as well as to evaluate whether the standards are perceived to be relevant and applicable by health professionals in mental health services. To compare the experience and to assess the validity of the tool, participants with a history of HPH membership and hospitals without previous experience to the WHO network were included. The questionnaire addressed the representatives of hospital/quality management and representatives of medical profession.

#### Results

Overall, 38 hospitals from twelve countries completed the questionnaire. The level of fulfillment with measurable elements was assessed. Floor and ceiling distributions are added to assess the response characteristic. Furthermore the reliability coefficient for internal consistency of five scales was tested. To identify items that are insufficiently clear in their description the descriptive and qualitative data analysis were conducted. The ratings of applicability and relevance the standards were analyzed.

#### Conclusions

The Self-Assessment Tool was developed to enable health professionals evaluating their practices in area of health promotion activities and to support psychiatric institutions to integrate standards and health promotion strategies to patients, staff and community. Hospitals taking part in the study rated most standards as being understandable, applicable and relevant. The assessment of psychometric properties, internal consistency and ratings of applicability and importance suggests robustness

of the tool. We recommend broad implementation of the Self-Assessment Tool in mental health services.

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### Therapy contentedness in child and adolescent mental health

#### **KACIC Viktor**

#### Introduction

The extent of satisfying hospital treatment of in patients with psychiatric disorders is often quite difficult to evaluate, especially in child and adolescent mental health. Subjective perceptions predominate in the evaluation of patients and their parents as well as in the assessment of therapists. The intent of our study was to identify specific items of contentedness with in patient treatment of children and adolescents suffering from clinically relevant psychiatric disorders in order to get a better understanding of their needs.

#### Purpose/Methods

Over a period of 6 months, from October 2013 until March 2014, three standardized questionnaires – questionnaire for evaluation of treatment, F. Mattejat, H. Remschmidt, 1998, - were completed for every discharged patient of our hospital. The questionnaires contained evaluations regarding satisfaction, success, determining factors, cooperation, process, and success of the treatment. The questionnaires were completed by the patient (FBB-P), the parents (FBB-E) and the therapist (FBB-T).Results of the questionnaires were matched with specific child and adolescent psychiatric disorders.

#### Results

Currently the return rate of questionnaires is 80%. Generally the therapists seem to rate the success of treatment significantly lower than patients and parents (p=0.01). Furthermore, therapists percieve their influence on parents lower than the parents themselves (p=0.05). Adolescents feel generally understood but complain about determining factors of therapy. The extent of therapy success is rated significantly higher in patients with internalizing disorders compared to patients with externalizing disorders, especially when conduct problems are involved (p=0.05).

#### Conclusions

First results show that therapists understimate their success in the treatment of children and adolescents with mental health problems and their influence on parents. Intensification of external supervision could contribute to a more differentiated evaluation of therapists. Furthermore it seems to be necessary to adjust therapeutic determining factors to the prevailing living conditions of adolescents, for instance considering the use of electronic media within therapeutic interventions. Especially for

persistent conduct disorders new therapeutic approaches need to be attempted.

#### **Contact: KACIC Viktor Enrico**

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#### Routine Screening of Mental Health and Further Intervention of Psychotherapy among Cancer Patients in Hospital

### KUO Chun-Ya, CHAN Ching-Fang, CHEN Vincent Chin-Hung

#### Introduction

Patients with severe medical diseases, such as cancer are at increased risk of mental illness such as suicide and depression. In many studies, depression and desire for hasten death are common in cancer patients. However, limited studies showed what extent Chinese patients are influenced mentally by cancer and how to manage the mental health in cancer patients. In this study, we investigated the effects of the routine mental screening and the results of follow-up interventions for the hospitalized cancer patients.

#### Purpose/Methods

Firstly, three items of The Patient Health Questionnaire-9(PHQ-9) and Distress Thermometer were routinely used to screen cancer patients admitted from April to December 2012. Patients with high scores of depression, suicidality, and distress level were included to the second stage. In second stage, after Mininternational Neuropsychiatric Interview(MINI), patients with either major depressive episode , suicidal risk, or high distress level were referred for the further interventions monthly. The interventions terminated when patients reached no suicidal risk, the distress level less than 5, and remitted of depression.

#### Results

In the first stage, we screened a total of 2372 cancer patients (51.1% male; mean age: 60.0) and 11.8% (number of 279) was included in the second stage of clinical interview. After MINI interview, 124 patients (56.3% male; mean age: 58.8) referred to the psychiatrists for further clinical intervention. During the study period, there were 76 patients (61.29%) terminated with improved conditions after mean 3.5 months followed up. There were 34 (27.4%) died in the further followed up period.

#### Conclusions

The results showed 11.8 % cancer patients suffered from depression (27.4%), suicidal risk (1.6%), or high distress level (71.0%) when hospitalization. The further interventions including monthly supportive psychotherapy and some portion of medical treatment at the same time are effective for those cancer patients with severe symptoms. According to our results, some

patients died very soon after hospitalization and discovering their psychiatric distress. Further survey and adequate palliative care, especially mentally supportive psychotherapy for terminally ill cancer patients are warranted.

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### The Patients View on Mental Health and Work Place

#### **SURVILAITE Danguole Regina**

#### Introduction

In 2013 Club 13&Co. (National Association of Persons with Mental Disorders and Their Friends), as a member of GAMIAN–Europe (Global Alliance of Mental Illnesses Advocacy Networks), participated in the international survey on mental health and work place.

#### Purpose/Methods

Aim. The main aim of Club's participation in this survey was to assess patients' work situation in Lithuania and comparing it with the situation in other European countries. Method. This study surveyed experiences of adults who have been diagnosed with mental illnesses. The questionnaire was translated into 21 languages by GAMIAN–Europe in order enable respondents to answer in their native language. In Lithuania 60 questionnaires were sent out to randomly selected mentally ill patients and later analyzed. In this presentation demographic data (age, gender, education, civil status, housing of respondents), working situation, motivation to work, impact of work on mental health, impact of mental health on barriers to get back to work is presented.

#### Results

572 responses from 20 countries were received, 58 of them were from Lithuania (i.e. 10,14 %). 20,98 % of all respondents were diagnosed with schizophrenia (in Lithuania: 56,89 %), 31,82 % – bipolar disorder, 19,93 % – depression (accordingly in Lithuania: 10,34 % and 8,62 %); 42,83 % of respondents are working, while 6,99 % never worked (in Lithuania: 44, 82 % and 3,44 %); the influence of work for metal health was estimated as very positive by 11,58 % of all respondents, positive by 22,36 %, neutral by 17,56, negative 22,75 %, and very negative 9,58 % (in Lithuania: 6,89 %, 18,86 %; 27,58 %, 36,20 %, and 1,72 %); respondents would not tell his/her employer about his/her illness because of: feeling that the employer wouldn't understand (15,59 %), being afraid to put his/her job at risk (13,72 %), fear of discrimination (13,72 %), fear be treated differently (11,43 %); accordingly in Lithuania: 8,62 %; 8,62 %; 12,06 % and 6,89 %.

#### Conclusions

•most of the mental patients are willing to work; •mental health has a strong influence on work and vice versa; •Lithuanian data are similar or better than overall in Europe; •the comparison



between Lithuania and European countries is provided in the tables.

#### **Contact: SURVILAITE Danguole**

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#### A salutogenetic modification of multi family interventions for schizophrenia. Concept and preliminary results.

#### **GASSMANN** Walter

#### Introduction

Multi family interventions are effective treatment options for patients suffering from schizophrenia. Most of these interventions are theoretically based on psychoeducation with additional elements from behavioural therapy. They target almost as well on the enhancement of knowledge about the disease as on new coping strategies to avoid a relapse. But till now there is a lack of understanding how psychoeducational interventions work.

#### Purpose/Methods

Although Landsverk & Kane (1998) proposed that Antonovskys 'sense of coherence' (SOC) might be one of the specific working factors of psychoeducation, there was less research to prove this hypothesis. On the other side, the SOC has to been shown as a reliable predictor for mental health related outcomes including quality of life. The present study investigates how psychoeducational multi family interventions could be modified for a targeted enhancement of the SOC on base of the vulnerability-resilience-stress-model.

#### Results

In a first trial four schizophrenic patients participated together with their family members in ten sessions of multi family interventions. In session one to six they got information about a salutogenetic point of view and its consequences for health, they had to rate themselves on a health ease-disease-continuum, they had to find out individual threats of their mental balance and to acquire personal conditions of vulnerability and resilience as well as to develop individual self helping strategies for relapse prevention.

#### Conclusions

Sessions seven to ten were even more activity-oriented. Participants had to work out in small groups how to realize their limitations and to communicate this as well as to find out salutogenic activities in their every day life to enhance their general well being. In a final step they had to rate themselves again on the health ease-disease-continuum. Preliminary results showed as well an enhancement of the SOC values as of the health related quality of life.

#### Comments

The abstract should be edited in one piece!

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## Session O4.2: Creating health promoting healthcare settings

Creating a Salutogenic Environment for Families through Community Partnership and Child and Family Engagement

## SAPPLETON Karen, HOLMES Deborah, MARCO Jane, KARMALI Karima, DE GAGNE Sitara

#### Introduction

Child and Family-Centred Care at SickKids embodies respect, communication and partnership. To advance this model of care, SickKids and Ronald McDonald House Toronto partnered to create a Family Room for families of severely ill children. This room will offer respite, comfort, privacy, and a home away from home –like environment that is only steps away from the child's bedside. The RMH Family Room will be a retreat from the clinical environment, designed through family engagement, respecting their needs and preferences.

#### Purpose/Methods

As a result of an organizational assessment regarding what child and family –centred care means to staff, patients and families at SickKids, a partnership with RMHT was formed in response families' request for more family-friendly spaces in the hospital. Interviews were conducted with individual families to assess their preferences for the Family Room. Two staff focus groups were held, and a working group was created with family advisors and interdisciplinary staff to determine the user group and process.

#### Results

The results of the individual interviews with 27 families and the two focus groups with 11staff indicate very similar needs and preferences for this Family Room. Families want a lounge space with full baths, a kitchen, laundry facilities, computers, TVs, fireplaces, and napping capacity. Staff indicated families need sleep rooms. As such the Family Room will now include a napping room with private reclining chairs, a separate sleep room, and a large family room with all of the amenities.

#### Conclusions

This presentation will provide an overview of the development and planning of the RMHT Family Room at SickKids. Through partnership with the community organization and engagement of patients and families, the Family Room was designed to meet the needs of the users. The Family Room is for the families to have a place of rest and relaxation in an environment that is non-clinical, calming and soothing. This Family Room will be operated and managed by the RMHT.

#### Comments

Please note that the subject of this presentation is Patient and Community Engagement, Salutogenic Environment for Families

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### Humour in healthcare - a tool to improve patients' wellbeing

#### **CULEN Monica**

#### Introduction

For the past 20 years RED NOSES International (RNI) has been making a difference for and learning from patients, families and medical staff in many health facilities throughout Europe and beyond. Our approach is multidimensional and cross-sectorial, connecting several development areas and promoting a positive and inclusive concept of health. RNI uses the scientifically proven health benefits of humour as a complementary therapy in the healing process, supporting resilience and response among patients.

#### Purpose/Methods

Humour can be a powerful tool to help people cope with their present reality. Our approach is human-based and has a focus on people's needs and in bringing about a sense of empowerment and human security. A holistic and culturally appropriated approach is essential to connect with the patient, to help them reconnect with their community and to facilitate the transmission of important health-related content, e.g. the need to take medication. Active collaboration with the hospital is therefore essential.

#### Results

Besides the tangible health benefits, hospital clowning offers an essential psychosocial support in a hospital environment and enables patients to gain control and react to their situation, namely through the use of interactive plays. This works very well with children and elderly, and has also been very successful when non-formal education components are included. This was essential e.g. to pass health related content to patients suffering from Buruli ulcer, in a RNI pilot project in Cameroon earlier this year.

#### Conclusions

RED NOSES programmes reach goes beyond the moment of interaction with patients, they help building human capacity to deal with illness and disability. Through humour, clown work can greatly improve the health care environment and contribute to empower vulnerable groups. By promoting patients active participation and engagement, hospital clowning promotes critical thinking and encourages the individual ability to understand their situation and to look for ways to improve and challenge it, therefore fostering their general wellbeing.

#### Comments

Please note that this work does not correspond to a scientific study, but to the daily work of our organization. However, and from our experience in the hospitals, there is a lot to be learned from what we do in order to contibute to the improvement and promotion of patient-oriented healthcare.

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#### Nutritional assessment: how to improve health care quality through staff empowerment.

### ZORATTI Raffaele, MARSON Roberto, DELENDI Mauro

#### Introduction

Quality measurement in health care is complex and in a constant state of evolution: recent changes in health care promotion standards are driving increased attention to assess patients' needs and to improve the quality of healthcare, both inside and between healthcare institutions. Evaluation of patient's nutritional status in Hospital settings, is considered an indicator of quality of care and can be achieved only through staff empowerment procedures. Literature on the importance of patient's nutritional assessment and monitoring is really extensive.

#### Purpose/Methods

Prevalence of inpatients suffering malnutrition is still high and it is related to increased morbidity and mortality, increased treatment and prolonged length of hospital stay which, in turn, are responsible of a decreased quality of life and an increase in costs. The study's aim is to focus on nutritional evaluation and monitoring among inpatients in "Santa Maria della Misericordia" University Hospital in Udine, Italy, and how this tool can be improved to ameliorate our patient's care through staff empowerment.

#### Results

A Clinical Nutrition Unit was established, with the purpose to set up protocols and guidelines to implement patient's nutrition management. Study's target was to get an accurate documentation of nutrition screening within 24 hours from



patient's hospital admission and, according to Malnutrition Universal Screening Tool, set up different procedures, such as 7 days patient revaluation, 3 days ingestion records and subsequent dietary prescription or Nutritional expert advice for malnourished high risk patients.

#### **Conclusions**

Through 2010-2013, the prevalence of nutritional screening, in a fixed sample of random clinical patient's records, in the whole Hospital settings, went from 68% in 2010 to 84% in 2011 up to 94% in 2013, with a net increase of almost 40% in three years time. Dietary prescription or Nutritional expert advice was increased from 20 % in 2010 up to 88% in 2013, in the same time frame.

#### Comments

This ongoing study shows how a quality improvement work plan, through staff education and training can ameliorate nutritional assessment in our Hospital. Efforts must be made to implement the quality goal of nutritional management, so that all staff will became familiar with guidelines, procedures and outcomes. It is necessary a strong collaboration among clinicians, nurses, dietitians, healthcare services and policymakers in order to achieve a long process of continuous improvement in patient health care and promotion.

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## The salutogenic waiting area Environmental and behavioral effect on emotion in waiting area

### SHAFIEYOUN Zhabiz, MIOCCHI Marco, BONOMI Ornella

#### Introduction

To influence on emotion of the people in waiting rooms, knowing the amount and kind of user's emotion is vital. According sevencategory of emotion. The goals are to increase and provoke positive emotions and to decrease negative emotions by design.

#### Purpose/Methods

In this study we have chosen two hospitals in Milan – Italy. We focused on waiting rooms.

#### Results

We find how subjects perceive of seven emotions in waiting rooms and how is their emotions in this situation.

#### Conclusions

Our study will focus on designing Salutogenesis waiting areas.

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## Session O4.3: Children's rights – life skills development in young people

Think and Action Tank (TAT) on Children's Rights to Health: a Rights and Equity based Platform to Child health and well being

SIMONELLI Ilaria, ARBEITER Klaus,
BENNETT Ashley, BENNETT Sue, CLARKE
Andrew, DIAZ HUERTAS José A., DURAN
STRAUCH Ernesto J., EHRICH Jochen,
FERNANDEZ GUERREIRO Ana Isabel,
FILIPPAZZI Giuliana, FLOTTEN Kjersti,
GOLDHAGEN Jeffrey, KURTZ Jessica,
MASIELLO Matt, MERCER Raul, MULLEN
Raquel J., NATHAWAD Rita, NICOLI
Augusta, O LIE Sverre, ROBINSON James,
SIMONELLI Fabrizio, SPRONK Sarah, SZABO
Laszlo, TSITOURA Stella, VAGHRI Ziba,
WHITE Les

#### Introduction

The Think and Action Tank on Children's Rights to Health is an international network of professionals and others caring for children. The TAT convened in June 2013 to explore the relevant theory, knowledge, experience related to the challenge of translating the principles of child rights into practice. The TAT purpose is providing a Rights- and Equity-based Platform to Child Health and Well-being, addressed to all Child life settings, including health care with particular regard to the health promoting settings

#### Purpose/Methods

In order to realize rights, they must be operationalized. The TAT elaborated a Platform encompassing both foundational elements derived from the conceptual framework related with the Human and Child rights-based approaches to health and an action cycle including three steps: Contextualization of the right to health, Assessment of the existing situation, Improvement by action. A final Call for action is addressed to all people who have at heart the Child health, with the aim to widen the Platform implementation process

#### Results

The TAT memberships has increased in few months, including health care professionals, policy makers and Associations' representatives from Universities, Hospitals, Ministries, Pediatric Associations, International Networks. The elaboration of the Platform has been finalized; it will be soon disseminated among international/national institutions, organizations, networks. The related ongoing work includes the adaptation of the text for specific target-audiences, the implementation of the Platform in the Child life settings engaging actors playing a relevant role in child right to health, like health/social professionals

#### Conclusions

Despite the availability of strategies and tools, including the UN Convention on the Rights of the Child, the principles of human rights have not been translated into health professional practice. The proposed Platform aims to overcome this gap and it is presented as the first in a series of manuscripts to prepare all stakeholders - duty bearers and rights holders - in children's health and well-being to translate the principles of child rights, social justice and equity into reality

#### Comments

Health promotion strategies and Rights-based approaches have a meaningful convergence on the concepts of health literacy and empowerment for health. Moreover, health promoting settings can be fruitful for developing awareness on the Child right to health, and health promoting professionals can have a conceptual and operational support from the Child rights-based approach to health. Given the committment of the international group and the information to be given, we would be interested only in a 10/15 min. presentation, if possible. Thank you.

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#### Australia-wide coordination in progressing a Child Rights based approach to healthcare

### WHITE Les, HALE Julie, VERNON Barb, MURPHY Joyce

#### Introduction

A universally applicable approach to addressing inequities in the health and wellbeing of children is to adopt a strong advocacy stand based on human rights principles, most powerfully expressed in the 1989 UN Convention on the Rights of the Child (CRC). The Taskforce on Health Promotion for Children and Adolescents in/by Hospitals and Health Services had undertaken an international project engaging participating hospitals to evaluate, enhance and progress the application of the CRC within health services.

#### Purpose/Methods

The Taskforce developed and refined a Self-Evaluation Method and Tool (SEMT) to enable services to audit existing levels of alignment with key principles of child rights and equity. The initial 17 pilot sites included the Sydney Children's Hospital in Australia. That experience led to a project engaging all children's hospitals in Australia along with other paediatric services. The primary purpose was to establish a national baseline according to the SEMT and identify opportunities and targets for improvement.

#### Results

The findings were varied across both facilities/services and the criteria of the SEMT. In general, aspects of clinical care performed better than engagement and consultation with children and young people. A Charter on the Rights of Children and Young People in Healthcare Services in Australia was developed and published, along with age specific posters. Both Government and non-Government agencies were engaged in partnering and supporting these initiatives.

#### Conclusions

Important opportunities for improvement and standardisation were identified in this national process. Children's Healthcare Australasia is coordinating both local/regional and Australia wide projects. The formal engagement of the state/regional jurisdictions is essential in generating a sustainable model embedded in broader policy, governance and monitoring processes.

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Workshop on life skills and peer education to promote lifestyles. Sharing the best experiences towards young people

#### AGUZZOLI Cristina, GIACOMINI Luisa, PONTELLO Elisabetta, CULOT Wally, BEACCO Virginio, MASCI Silvia, CONTINO Antonina, POZZI Marta

#### Introduction

To handle the stress of growth often young people put in action a lot of risk behaviors and bad lifestyles. The development in adolescence physiologically must face a certain amount of risk and experimentation, but at the same time the young have a decreased perception of danger. The "life skills" are a validated strategy by the WHO as an educational approach which impacts on the reduction of risk behaviors in young people -Lancet 2008 Campbell- How to apply them?



#### Purpose/Methods

The workshop aims to share best practices promoting the empowerment of young people versus the pressures of social networks and bad television programs on health-related choices. The use of interactive methods in which young people are protagonists in the learning process, are the most effective vehicle for training critical thinking and creativity. They are also useful to promote accountability and decision making in a context in which emotional stress can lead to impulsive actions.

#### Results

The Multidisciplinary work both within the Health Services and in the whole community, is the way to achieve common health goals. With this workshop we want to highlight the need of sharing a common language between the stakeholders involved: teachers, health professionals, associations, student representatives, representatives of institutions. 1) How to act on the potential rather than on weaknesses? 2)The peer education approach for Affectivity and sexuality, Alcohol and Addictions, Nutrition and Physical Activity

#### Conclusions

We have to consider that most of the media uses the languages of youth to induce commercial choices. So the programs on healthy lifestyles must counteract these strategies and be attractive. The young people involved adhere with passion to the programs especially when the teachers use video communication patterns which can involve the music. In this way the emotional impact is stronger and facilitates the transmission of messages. Adults should enhance the creativity flow of young people.

#### Comments

To spread an educational approach able to develop self-efficacy and resiliency, we must work on organizational models that go beyond the lessons by the expert on the subject. The culture of life skills should be shared in the family setting from the earliest years of life to continue in the school setting. Outside of school, health services need to do advocacy to guide the choices of the community towards alliances with groups of young people, pub owners and party planners. Workshop on life skills and peer education to promote lifestyles. Sharing the best experiences towards young people

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Health behaviours and health skills in adolescents with chronic conditions: an action-research project within the paediatric department of a university hospital in Belgium

#### AUJOULAT Isabelle, CHARLIER Dominique, HENRARD Severine, POLLATZ Charlotte, SUNDARA Monemani, REDING Raymond, VERMYLEN Christiane

#### Introduction

15% of all adolescents and yound adults in the industrialised world live with a longstanding health problem. In addition to developing a personal sense of self and identity (the main developmental task in adolescents according to Ericksson), young people with a chronic condition face the challenge of developing sufficient self-care abilities in relation with their condition and with general health issues. These important health and developmental tasks are generally insufficiently integrated in hospital-based patient education interventions.

#### Purpose/Methods

We hypothesized that chronically ill adolescents might have specific health promotion needs as compared to healthy adolescents. Prior to implementing transversal health promotion interventions, we conducted a survey through self-administred questionnaires, in order to assess the prevalence of risk-taking and protective behaviours, general psychosocial health resources (including mental health assessments), perceived parental control and perceived sense of vulnerability in adolescents with a chronic condition (n=137), as compared to adolescents without a chronic condition (n=599).

#### Results

Prevalence of risk-taking behaviours was similar in both samples. However, chronically ill adolescents tend to self-medicate more in relation with psychosomatic disorders. Regarding psychosocial health, socioeconomic factors emerged as stronger determinants of perceived health, quality of life and depression than the chronic condition itself. Attention needs to be paid to relations with peers: while chronically ill adolescents reported a significantly better self-esteem regarding school performance, stress in relation with bullying at school was significantly higher than in the control group.

#### Conclusions

The study is part of a broader action-research project in our hospital, which also involves qualitative interviews with patients and their families, and the multidisciplinary health care teams. Our results are discussed within the paediatric department, in order to implement transversal health promotion interventions aimed at supporting chronically ill adolescents in their process of developing a sense of self that is not dominated by illness, yet integrates the idea of chronicity and the need to self-manage their condition.

#### Comments

This project is funded by the Bruxelles Region (Innoviris), within the programme Prospective Research for Bruxelles 2011.

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"SAFE KIDS" HOSPITAL - Educating parents and children in maintaining safety behavior, at home and outside the home, is one of our main priorities

### ZADVIL Solange, GRANOT Eti, LISHA Iris, MAZRI Yemima, YAISH Bruria, LEVI Dina

#### Introduction

Accidents occurring at home are a major cause of injury and death, in children and adolescents. Each year of approximately 200.000 visits to the Pediatric Emergency Rooms in Israel, 20.000 are estimated to be due to unintentional injuries in and outside the home( playgrounds, schools etc). Of these, 200 children die each year. The majority of these cases are preventable! In the Kaplan Pediatric Medical Center, 600 children with unintentional injuries are admitted each year, which constitute ~12% of all hospitalized children

#### Purpose/Methods

- Raising staff awareness to the causes of unintentional injuries so that they can instruct parents of hospitalized children regarding safety issues. - Implementing an educational program in the Department of Pediatrics, the Neonatology Unit and the NICU, encompassing all parents of children hospitalized after unintentional injury and all babies and prematures born in our medical center. Instructions to staff (nurses & physicians) Instructing parents of hospitalized children regarding prevention of unintentional injuries (choking, drownings, poisoning, burn injuries, falls, use of safety car seats)

#### Results

- During 2006-2012, 250 parents per year, a total 1500 parents of children admitted to the Department of Pediatrics, underwent instructive sessions and received reading material and visual aids, regarding prevention of injuries. - In the Neonatology Unit, nurses instructed over 5000 parents of newborns (from 01/01/13) - In the Neonatal ICU, nurses advised 150 parents (from 01/01/13) regarding safety measures in premature babies.

#### Conclusions

- Raising staff awareness to pediatric safety issues, allowed the setting up of a wide educational program, that has encompassed during the last few years, over 7000 families. - We believe that this program can contribute to significantly decreasing unintentional injuries in our community.

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Promoting health in children in contexts of everyday life: testing a new organizational and application model with measurement of the impact on health outcomes.

BICEGO Livia, SANSON Sara, MAGGIORE Adele, DEL PIO LUOGO Tiziana, DI LENARDA Andrea, CROCI Eleonora, BRECEL Antonella, GRIM Antonella, SIST Paola, URBANI Ranieri, BARBIERI Pierluigi, PASSOLUNGHI Maria Chiara, COSTA Hiwet Mariam

#### Introduction

Promoting health in children/adolescents is fundamental to acquisition of healthy lifestyles but also to develop and strengthen life skills, decisive instrument for growth in health and balance. This project is the result of collaboration, integration and sharing of expertise and resources of different institutional and non-institutional actors. It was implemented in municipal recreation centers, a place of recreational, cultural and sports activities for children in presence of teachers in the afternoon. These are a context other than traditional schools, a solid and familiar place, very popular between citizens.

#### Purpose/Methods

The project, developed during a school year, included: healthy eating workshops run by educators from recreation centers specifically trained by Food Hygiene and Nutrition professionals judo, chosen for educational value and aerobic-anaerobic physical effort evaluation of health outcomes through questionnaires/interviews by the participating children and parents before and after the course to assess any changes in eating habits, physical exercise and life skills, intended as self-awareness and capacity to establish effective relationships free medical examination and certification closing party

#### Results

Two municipal recreation centers participated in this project, with a total of 35 children aged 8 to 11 years. Analysis of questionnaires/interviews showed a significant increase in eating knowledge (increased number of fruits and vegetables known, more detailed and specific vocabulary to refer to food and more precise and appropriate description of eating experience), in self-perception and self-esteem in relation to physical aspect and relationship with peers and, not least, in physical exercise beyond physical activity connected to the project.

#### Conclusions

These results demonstrate importance of introducing and spreading in different contexts of daily life of children-adolescents, educational programs which include both nutrition education and physical activity, by carefully choosing the discipline to practice, thus enabling development and



strengthening of life skills such as interpersonal skills and self-awareness. Given positive results, this project has become not only regular activities of participating recreation centers but the offer has also been extended through a training course in Global Method of Self-defense for girls aged 13 or older.

#### Comments

Given the results achieved in spite of the short duration of this experience, this project could become a model to be spread on the territory to have a real impact in terms of public health, also considering the limited economic investment thanks to the collaboration of local stakeholders and the world of associations, sharing expertise and resources.

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## Session O4.4: Responding to community health needs

Effectiveness and cost-effectiveness of health promotion counselling offered to a population at the age of 55. A randomized controlled trial in the county of Västmanland, Sweden.

#### **HELLSTRAND Mats, FELDMAN Inna**

#### Introduction

Cardiovascular diseases and diabetes are still major public health problems in Sweden despite substantial reduction during the last twenty years. Evaluation of health promotion interventions in the counties of Västerbotten and Jönköping including health promotion counselling has shown substantial and long-term reduction in the incidence of cardiovascular diseases and diabetes. Can a randomized control trial contribute to the understanding of the effectiveness and cost-effectiveness of health promotion counselling?

#### Purpose/Methods

Individuals aged 55 years registered at five primary health care centres were randomly assigned to an intervention or a control group. Participants' characteristics and risk factor levels were collected at baseline and at one-year follow-up. Effectiveness was assessed via a before-and-after trial. A Markov model was used to predict future cardiovascular disease and diabetes. Simulations with risk factor levels at baseline and at one-year follow-up were done, with an assumed 4-year sustainability of intervention effects.

#### Results

The intervention group (n=159) compared to the control group (n=179) showed significant improvement in some risk factors, such as BMI, waist- and waist-hip-ratio. Also the control group showed interesting improvements. Interventions costs were estimated as EUR 130 per participant. The improvement in risk factor levels resulted in slightly better health and lower future health care costs. The expected number of QALYs increased slightly, while future health care costs decreased by EUR 320 per participant.

#### Conclusions

Population based health promotion interventions such as health promotion counselling imbedded in primary care seems to be effective and cost-effective in improving lifestyle related risk factors for cardiovascular decease and diabetes. The improvement registered in the control group can be explained as a result of the baseline and follow-up data collection, as the participants reflected on their lifestyle habits and had access to their medical parameters. Further studies are needed to investigate the stability and sustainability of the results.

#### Comments

The combination of evaluations, effectiveness and costeffectiveness, contributes strongly to the understanding of potentially added value of health promotion interventions.

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Change of culture through a culture of collaboration - experiences of the work of the Östgötacomission on Equality in health in Östergötland

### KRISTENSON Margareta, VAN VLIET Jolanda

#### Introduction

Also in the welfare state Sweden there are large inequalities in health, and these are seen for both individual socioeconomic status and between different geographic areas within the county of Östergötland in south east Sweden. Challenged by these inequalities a mainstreaming process for greater heath equity in the county of Östergötland started. This developed into a systematic and long-term strategy in the region aiming at improved public health and reducing health inequalities

#### Purpose/Methods

A Public Health Policy for the Östergötland county 2011-2014, was agreed on in a mainstreaming process in collaboration between the different stakeholders in our region. This policy recommended a regional commission for health, based on the WHO commission led by M Marmot. The Östgötacommission for health started 2012 after political agreement and the commission

and 13 researchers and two politicians got the assignment to analyze socioeconomic differences in the county and give recommendations for actions.

#### Results

The Östgötakommission has demonstrated socioeconomic differences in health in the county and the local communities, but also identified explanations for these differences and presented possible solutions at different levels. All parts have been discussed with politicians at the community and county level. These dialogues were found to be critical in the commission's process to recommend actions. A central insight is the need for a regional function for continuous public health surveillance and coordinating of different initiatives in the region.

#### **Conclusions**

Culture can be changed by collaboration and mainstreaming processes. The present work has contributed to an active dialogue between the various stakeholders in the county and to opportunities to integrate a public health perspective at all levels of society. The next step is to continue this path also to the difference arenas for action and also to assure long term survival of this new Culture.

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# Five-year Experience of Medical Support Action at "On-street Consultation for Community Health Promotion

#### **OHNO Giichiro**

#### Introduction

To promote health in local community, it is not enough to wait for patients coming to hospitals. Our hospital has been staging medical support action for Free On-street Consultations as a member of the committee which consists of some 50 organizations including labor unions, law office and many volunteers. The actions have been held in two local cities in the suburb of Tokyo, usually in winter season when the number of unjust dismissal increases in Japan.

#### Purpose/Methods

The consultation has been held seven times in the period of 5 years. Tents were installed in front of a railway station. Two hundred and ninety-one people visited the consultations in total. The number of men were higher than that of women and people at their 60's numbered the highest, followed by the those at their 40's. Each person usually had more than one issue to consult and the total number of consultations exceeded four hundreds.

#### Results

The distress can be classified into three categories: work, life and health. 30% of visitors suffered from medical problems and 65% from daily life and 52% from work. Medical problems included chronic diseases as well as medical cost, that could not be resolved by one-time consultation. One-fourth of both visitors with work problem and daily life problem also worried about health problems. Among the people with health problems, 42% suffered from work problem and 52% from daily life problems.

#### Conclusions

Livelihood protection system was applied for urgent cases and some cases were resolved immediately. Many staff came to recognize the linkage between problems: a health problem causes work and life problems, while work problems induce health ones. To keep health promotion it is necessary to guarantee work and life. The action was a beneficial approach to understand health problems in community and to build local network. It was also a learning occasion for medical staff and students.

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### The Hospital Designed to Keep People Out of Hospital

#### WOODMAN Cheryl, MCPHERSON Heather

#### Introduction

Women's College Hospital (WCH), situated in Toronto, Canada, is an academic, ambulatory hospital with a focus on health for women. Recognizing the rapidly changing health-care needs of our urban populations, the hospital has developed targeted strategies in collaboration with its acute care and community partners to address the pressing needs of our communities such as access, health equity, and effective management of complex chronic conditions. With our partners, we're creating new models of care and navigating health and health promotion in ways that fill an unexplored niche in the system and keep people out of hospital when avoidable and appropriate. Innovative and collaborative approaches to assessing and understanding diverse community needs are explored through case studies that focus Refugee Health Services 2. Aboriginal Centre 3. Peer-led breast and cervical education and screening for the under/never screened

#### Purpose/Methods

To demonstrate, through qualitative case studies and quantitative outcomes (measured through patient experience; health promotion/social determinants of health; service efficiencies data), select hospital-community collaborations that have translated into enhanced patient care and health outcomes, and organizational and health system solutions that promote health beyond the hospital walls.

#### Results



Qualitative and quantitative results across three collaborative models of service illustrate how hospital and community health providers promote health, enhance integration and leverage knowledge, skills and capacities across a continuum of services for marginalized or underserved populations in a shared catchment area. Common aspects of the collaborative models are compared and distinct, community-specific, social determinants of health are identified. Particular attention is paid to the multistrategy approach and barriers and enablers in the contexts of policy, hospitals and community.

#### Conclusions

The operating model of the 'hospital designed to keep people out of hospital' requires collaboration with community to optimize integration of health services. The studies reinforce Standard 5 (Continuity and Cooperation), as the organization demonstrates planned, multi-faceted approaches to collaboration. Success has depended on 'champions' within the hospital, the community, and government. The commitment to overcome cultural differences has been imperative. We conclude with a discussion of implications for patient experience, population health and service value.

#### Comments

This work has led to a recent proposal to policy-makers in Ontario, Canada to scale-up such service model that enable organizations to collaboratively build and share expertise and integrate service in ways that enhance patient experience, population health, and system value.

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# Session 4.5: Healthcare systems and organizations II

Changes in lifestyle risk factors:
Health and economic impact as
estimated by the population based
model

## FELDMAN Inna, HELLSTRAND Mats, JOHANSSON Pia

#### Introduction

The possibility to estimate societal cost savings given a change in population lifestyles is of interest to health promotion specialists and decision-makers. A population based model named Risk factors, Health and Societal Costs (RHS) was developed to simulate changes in incidence and related societal costs of several chronic diseases during five years, following assumed changes in four common risk factors for disease: obesity

(BMI>30), daily tobacco smoking, lack of physical activity and risky consumption of alcohol.

#### Purpose/Methods

The model is based on relative risks and potential impact fractions that simulate the changes in disease incidence of reducing the exposure to risk factors. Relative risks and disease-specific QALY and DALY weights were collected from international publications. Swedish national registers and a Swedish study were used to retrieve incident cases and disease-specific societal costs. The health gains are calculated as decreased number of incident cases of disease, increased health-related quality of life (QALYs) and decreases in disability (DALYs).

#### Results

The scenarios, which assume a certain reduction in population risk factor prevalence, show that considerable health gains and savings in societal costs can arise from modest changes in population lifestyle habits. As an example, a 1 % reduction in prevalence in daily smoking among Stockholm county population is estimated to lead to health gain of 64 QALYs and societal savings (health care, municipality care and sickness insurance) of 72 million Swedish krona.

#### Conclusions

The RHS model estimates future cases of illness and related societal costs due to lifestyle risk factors in the population. By creating scenarios with assumed changes in risk factors, the model can estimate potential health gains and societal costs savings, which can be used as relevant arguments in discussions with decision-makers for a more health promoting health care system.

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## The challenge of commissioning health promoting health care

#### HARLID Ralph, JÄRBRINK Krister

#### Introduction

In reality, the details in health care provision are made up between the clinician and the patient. This provides little room for the societal preferences of the provision of a national health service. Instead, there is a substantial risk for unequal distribution, a less cost-effective care and that health promoting health care is given a low priority due to incorrect time-preferences.

#### Purpose/Methods

The health care in the Region of Västra Götaland, Sweden is commissioned by local political committees. In this research an economic approach is applied in order to identify successful ways of commissioning health promoting health care taking in consideration the patients' rights to choose health care provider

and the increasing share of private providers with strong economic incentives.

#### Results

Requirement analyses of political prioritized disease areas have identified a number of possible interventions. However, the implementation of those appears best to be made by clinical guidelines requiring revisions. Supporting health promoting health care by payments and economic incentives appears less effective if not commissioned independently and paid for specifically. Besides clinical guidelines, information to patients increasing health literacy is a beneficial complement that has to be tailored to target-groups in order to support equality.

#### Conclusions

Supporting health promotion is currently best made through a knowledge based care using clinical guidelines that are followed-up and by encouraging health literacy in the population. A politically commissioned and publicly paid health service were providers do not have population responsibility require much more sophisticated payment-systems than what currently is the case. Payment for episodes of care is one way forward but even that do eliminate all incentives that are contributing to a less cost-effective and less promotional health care.

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Changing cultures: Implementation of HPH and National Guidelines for Prevention – A joint venture between The Swedish National Board of Health and Welfare, the Swedish Association of Local Authorities and Regions and the Swedish HPH network

#### **KRISTENSON Margareta**

#### Introduction

During the last years two important steps have been taken on the national level in Sweden to achieve a health orientation of health service. In 2011 The Swedish National Board of Health and Welfare (NBHW) published National Guidelines for Disease Prevention Methods that provide recommendations for methods supporting patients in their efforts to change unhealthy lifestyle habits. The guidelines discuss tobacco use, hazardous use of alcohol, insufficient physical activity and unhealthy eating habits. The implementation is now on the fourth year and we have experiences of a comprehensive approach, targeting decision makers, health care professionals and patients, and challenges when translating guidelines into health care. June 14, 2013, the Swedish Association of Local Authorities and Regions (SALAR)

decided on a policy statement for a Health Promoting Health Service, which builds on the WHO concept of HPH, stating that SALAR shall develop its efforts for the development in this direction. In both occasions a close collaboration is ongoing between these national parties and the Swedish HPH network, linking national initiatives and guidelines with regional and local authorities and to development at clinical settings.

#### Purpose/Methods

The symposium will present the experiences from implementation of National Guidelines for Disease Prevention Methods, the policy statement at SALAR and, finally, the present state in the Swedish HPH- Network to illustrate how these three bodies interact together aiming at changing cultures in health services towards a health orientation

#### Results

Speakers Iréne Nilsson Carlsson, National Board of Health and Welfare The content of the Swedish National Guidelines for Disease Prevention and the NBHW support for implementation of these guidelines; strategy, process, partners, activities and experiences. Hanna Wallin, Swedish Association of Local Authorities and Regions The Position paper for SALAR on Health Promoting Health Services; background, content and implications. Margareta Kristenson, The Swedish HPH network The Swedish HPH network as instrument for implementing the HPH concept and national guidelines for disease prevention; Strategies, activities and outcomes.

#### Conclusions

Chair Margareta Kristenson The three presentations shall be followed by interactive discussion with the audience.

#### Comments

We would suggest this for a symposium- In case there is not place for at full seminar of three presentations please consider the possibility to be placed together with other presenters on the same topic and then we can discuss the form of our presentation!

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Cultural change in primary care - from disease treatment to heath promotion.

## VAN VLIET Jolanda, KRISTENSON Margareta

#### Introduction

There is today good evidence for the effect of health examinations including a health dialogue with a specially trained nurse using a "health curve" as an educational tool. Aiming at further developing the preventive work in primary care as well as



addressing the population health and lifestyle, this method has been introduced in the County Council of Östergötland. As this is a change of culture, both for the people invited and for the personnel, we wanted to study their attitudes.

#### Purpose/Methods

In the autumn 2012 health examinations including a health dialogue were offered to a randomly chosed population sample of 2000 inhabitants aged 40-70 years in south east Sweden, and 964 (50% women) visited 25 primary care centres. The examinations were performed by experienced nurses having four days of specific training sessions including communication skills. By means of questionnaires the opinion of the participants and the personnel on this new way of working in primary care was asked for.

#### Results

The 48% participating were representative for the population with respect to age, gender, country of birth and health status. The participants reported high satisfaction with the opportunity of a health examination and dialogue offered in primary care, and the quality of the counselling. Also the personnel in primary care reported positive experiences, despite the extra work load. Important was the possibility to develop their skills in preventive work, motivational interviewing and empowerment as well as to suggest improvements.

#### **Conclusions**

This evaluation shows that both participants and primary care personnel are positive to the change of the primary care perspective from a main focus on treating disease in patients towards an increased focus on health promotion and empowering people.

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Regional health promotion coordination in Pirkanmaa area,

## AHONEN Juha, VARJONEN-TOIVONEN Maarit

#### Introduction

Finland.

Ministry of Social Affairs and Health in Finland has a general responsibility for guiding and overseeing health promotion in Finland. Health promotion is based on the Health Care Act (2010) and is part of public health activity. Municipalities are responsible for taking health and social welfare into account in all their activities and decision-making. The Pirkanmaa Hospital District (PSHP) is a joint municipal authority of 23 municipalities with a total of 489558 residents.

#### Purpose/Methods

Regional health promotion is carried out through cooperation with various actors covering the regional level, municipalities and specialized care provided by the hospital district, including both patients and personnel as a target groups. In order to organize and utilize health promotion in hospital settings, there are a HP-promotion board, HP- expert group, HP-collaboration teams in divisions and HP-contact person in units and wards.

#### Results

The office of Chief Physician of health promotion was launched under administration of Centre for General Practice. Chief Physician is responsible for of a regional cross-sectoral coordination of health promotion and implementation. The Health Care Act requires municipalities to report on the work and wellbeing of a cross- functional basis for the promotion of health of the population.

#### Conclusions

Pirkanmaa Regional co-ordination of health promotion has been gathered into a Regional Plan for Health Promotion (2011). Implementation of the plan includes measures to the regional level, local authorities across all industries and to primary health care and the hospital produced by specialized medical care. For congruent development and supportint continuity of health promotion, PSHP is a member in The Association of Health Promoting Hospitals and Organizations in Finland (STESO).

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## Session O4.6: Symposium: Smoking Cessation in vulnerable groups

The effect of an intensive smoking and alcohol cessation intervention shortly before and 5 weeks after bladder cancer surgery on postoperative complications and smoking cessation- the STOP-OP study

#### **VAHR Susanne**

#### Introduction

Radical cystectomy provides the best cancer-specific survival for muscle-invasive urothelial cancer. However the postoperative morbidity remains at 11-68 %. Smoking and alcohol consumption above two drinks per day is associated with an increased risk for

postoperative morbidity. Six-eight weeks of smoking and alcohol abstinence prior to elective surgery is recommended to reduce this risk, but for cancer patients the preoperative period is often very short.

#### Purpose/Methods

The purpose of this RCT is to investigate the effect of the Gold Standard Programme(GSP) for both smoking and alcohol cessation Intervention on frequency and severity of postoperative complications after radical cystectomy. The study is a multicentre randomised clinical trial involving 160 patients with a risky alcohol intake or/ and smoking more than 1 cigarette per day scheduled for radical cystectomy. Patients are randomised to 6-weeks GSP or treatment as usual (control). The GSP combines patient education and pharmacologic strategies

#### Results

Former studies have identified a reduction of 83 % of postoperative complications needing treatment in surgery patients. In this study we expect to be able to reduce the complication rate from 50 % to 25 % in bladder cancer patients treated with radical cystectomy

#### **Conclusions**

Based on former studies it seems relevant to investigate if a combined smoking- and alcohol cessation intervention can reduce postoperative complications needing treatment after radical cystectomy.

#### **Contact: VAHR Susanne**

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## Smoking Cessation in Vulnerable Groups

#### TØNNESEN Hanne, FERNÁNDEZ Esteve

#### Introduction

Program: Smoking cessation in vulnerable groups – T. Neumann (Germany) Smoking cessation for pregnant women - M. Rasmussen (Denmark) Smoking cessation in cancer surgery patients - S. Vahr (Denmark) Smoking in mental health settings: overcoming resistance from patients and health professionals - A. Gual (Catalonia) Smokefree psychiatry Skane - H. Tønnesen Chair: Hanne Tønnesen (Denmark) and Esteve Fernández (Catalonia) Smoking Cessation in Vulnerable Groups In this symposium we will be dealing with Smoking Cessation in vulnerable groups. There is a major unexploited potential in preventing vulnerable groups in relation to smoking. There are great differences in the prevalence of smoking for different groups according to e.g. nicotine-dependency, diagnosis, socioeconomic status or age. In this symposium we address some of the specific groups that need special attention. We will address the heavy smokers, who are often regarded a very difficult group who are less likely to successfully quit smoking. Another vulnerable group are the pregnant smokers who increase the risk

of complications in mother and child. The smoking can also cause problems for the child later on. There is a strong incentive to systematically improve the offer to pregnant women. The same applies to mentally ill patients. Mentally ill patients live about 15 years shorter than the general population. Their high premortality is largely due to lifestyle-related diseases, and smoking alone causes 5-10 years of the reduced life expectancy. Another very different but highly relevant vulnerable group is cancer patients undergoing sub-acute surgery. The symposium will include a discussion among the participants and speakers.

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## Smoking Cessation for Pregnant Women

#### **RASMUSSEN Mette**

#### Introduction

Many studies have established an increased risk of a number of serious complications associated with smoking during pregnancy for both mother and child. These include spontaneous abortion, ectopic pregnancies, perinatal mortality, placental abruption, reduced prenatal development of lung function, preterm birth, low birth weight, conjugate malformations, growth reduction, hospitalisation within the first year of life, and sudden infant death syndrome, as well as the development of behavioural disturbances and lifestyle problems in the child have been shown.

#### Purpose/Methods

The aim was to evaluate the effectiveness of an intensive 6-week gold standard programme (GSP) on pregnant women in real life. This was a prospective cohort study based on a national Danish registry on smoking cessation interventions. The study population included 10,682 women of a fertile age. Pregnancy status was identified using the National Patient Registry. Primary outcome: self-reported continuous abstinence for six months. Secondary outcomes: abstinence at the end of the programme, 14 days point prevalence, and patient satisfaction.

#### Results

The response rate to follow up was 76%. The continuous abstinence rate for both pregnant and non-pregnant smokers was 24–32%. The following prognostic factors for continuous abstinence were identified: programme format (individual/group), older age, heavy smoking, compliance with the programme, health professional recommendation, and being a disadvantaged smoker.

#### Conclusions

The GSP seems to be as effective among pregnant smokers as among non-pregnant smoking women. Due to the relatively high effect and clinical significance, the GSP would be an attractive element in smoking cessation intervention among pregnant women.



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### Smoke-free psychiatry in Malmö, Region Skåne

### TØNNESEN Hanne, PASQUARIELLO Johanna, ANDERSSON Sven-Erik

#### Introduction

Smoking is very extensive in psychiatry - both among patients and among staff. In Scandinavia psychiatric patients die 15-20 years earlier than the population - mainly due to smoking-related disease [1]. The aim is therefore to investigate the implementation of smoke-free environments and the best smoking cessation program for both patients and staff in psychiatry Malmö, Skåne Region.

#### Purpose/Methods

Two important elements have been developed; one is the regional policy of smoke-free hospitals and health services; the other is the high-effective smoking cessation intervention, named Gold Standard Program (GSP). It is a 6-week program with combined teaching and counselling with free nicotine replacement therapy [2]. 1) Staff is the first step. Smoking and snuffing staff in Psychiatric Departments in Malmö can participate in the GPS for free and during their working hours. 2)

Improved staff skills on tobacco use and training for staff to provide the GSP to all patients who smoke or snuff. The goal is that there should be two GSP counselors in each ward / clinic. 3) The third step is a fully implementation of the regional tobacco policy for patients and staff. It includes information to all patients about "smoke-free Psychiatry Malmö" and actively offering the GSP to all tobacco users.

#### Results

The project is ongoing and the process, quit-rates and satisfaction will be presented at the conference.

#### Conclusions

The study will add to the knowledge on implementation strategies of smoke-free psychiatry.

#### Comments

Symposium "Smoking Cessation in Vulnerable Groups"

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## Smoking cessation for vulnerable groups

### NEUMANN Tim, RASMUSSEN Mette, TØNNESEN Hanne

#### Introduction

Smoking cessation programmes do address all smokers; however there are differences in the effect of these interventions in respect to patient characteristics. The vulnerable groups of smokers include smokers without a job or higher education as well as heavy smokers. Aim: to evaluate differences in outcome among smokers undergoing a standardized intensive 6 week smoking cessation programme (Gold standard programme, GSP) in respect to smoking severity or being disadvantaged.

#### Purpose/Methods

Data from smokers attending an intensive cessation programme reporting to the Danish national registry on smoking cessation interventions (SCDB) were analyzed: 36,550 smokers (2001-2010), 16,377 smokers (2006-2010). Response rate at the 6 months follow up was 78-80%. The primary outcome was the 6-month continuous quit rate in responders. The worst case scenario is also reported (in brackets), when all non-responders were considered as smokers at follow-up.

#### Results

Continuous abstinence was reported in 33-34% of the all responders (worst case scenario 26-27%). It decreased with about 6-7% in a dose-dependent manner with increasing smoking severity. Continuous abstinence ranged from 27% (20%) in the group of the heaviest smokers with 7-10 Fagerström points to 43% (34%) in the smokers with 0-2 points. Similar differences were also observed in the 35% of smokers with a lower educational level: Continuous abstinence was reported by 30% (23%) of the responders vs. 35% (28%). Among the unemployed patients it was 27% (19%) vs. 34% (27%). Factors associated with a more favourable outcome were: attending all meetings, attending programmes in one-on-one formats (vs. group formats), male gender and programmes in hospital (for heavy smokers).

#### Conclusions

The intensive GSP programme is successful also for 'vulnerable' smokers, however, there are considerable differences. The SCDB registry is a valuable tool to monitor also these differences in outcome.

#### Comments

Symposium "Smoking Cessation in Vulnerable Groups"

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# Smoking in mental health settings: overcoming resistance from patients and health professionals

#### **GUAL Antoni**

#### Introduction

Mental Health settings are often treated as exceptions to the smoke free policies applied to Health Centres. Those exceptions are based on prejudices that are rooted in the beliefs of both patients and professionals, but have no evidence base. As a consequence, those patients and professionals suffer high levels of exposure to smoke. In this presentation we present the development of the Catalan working group on mental health and smoking. With a bottom up approach and the support of the Catalan Network of Smoke-free Hospitals, the working group has given smoking a relevant place in the mental health agenda. In parallel with recent and more restrictive law developments, the group has studied the exposition to second-hand smoke in psychiatric settings, has launched guidelines, designed intervention protocols, trained professionals in smoking cessation and promoted awareness-raising meetings. This approach has been quite successful to facilitate the implementation of new smoke-free policies in psychiatric settings and to raise the awareness on the relevance of treating nicotine dependence in psychiatric patients.

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# Session O4.7: Workshop for young researchers by "Clinical Health Promotion Society"

Workshop for young researchers by "Clinical Health Promotion Society"

## WERNHEDEN Erika, AALYKKE Marianne, PELIKAN Jürgen

#### Introduction

Workshop for young researchers by "Clinical Health Promotion Society" Workshop for the HPH Conference in Barcelona, Spain 2014 Program: • Introduction / Jürgen Pelikan • Abstract writing / Oliver Groene/Hanne Tonnesen o Group work •

Poster presentation / TBC o Group work • Wrap up and feedback Chairmen of the workshop:

Marianne Aalykke, Erika Wernheden, Professor Jürgen Pelikan About the workshop: Clinical Health Promotion Society (CHPS) is a newly founded scientific society for researchers and others

interested in clinical health promotion research. In Barcelona 2014, CHPS will chair its first workshop for all young researchers in the field of clinical health promotion, which will focus on poster presentation and abstract writing. The session will be chaired by two young members of the society and the workshop will commence with a short introduction and presentation of Clinical Health Promotion Society by the society's vice president Jürgen Pelikan. CHPS is a non-profit organization, created exclusively for charity, educational and scientific purposes and has a special focus on young researchers. As Clinical Health Promotion is still a relative new area of research, CHPS will function as a platform for all researchers and provide a dynamic, international forum for discussion and dissemination of relevant research results. The workshop will provide young researchers with an exceptional opportunity to learn from and interact with internationally leading experts. The workshop, which lasts 90 minutes, will be divided into two sessions, poster presentation and abstract writing. Each session will constitute of an introduction by an expert within the field, followed by hands-on group work. By participating in this workshop, young researchers will obtain skills useful for dissemination of their research.

#### Purpose/Methods

n.a.

#### **Results**

n.a.

#### Conclusions

n.a.

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# Session M1.1: Health promotion in pregnancy and early childhood

Assessment of information given to women during pregnancy in Cyprus: Is it enough for achieving maternal health literacy?

## STYLIANIDES Constantinos, PITHARA Christalla, RAFTOPOULOS Vasilios

#### Introduction

Prenatal education is standard practice in developed countries and mainly consists of the exchange of information concerning pregnancy and labor. However, prenatal education provides an opportunity for increasing women's health literacy and empowerment in terms of successful parenthood, especially in the context of promoting child as well as maternal health.

#### Purpose/Methods

Findings from a study evaluating the level and type of information provided to pregnant women in a tertiary public hospital in Cyprus and women's satisfaction with the services provided will be presented. These will be discussed in the context of maternal health literacy.

#### Results

Forty percent of participants had a cesarean delivery, more than double the recommended rate by WHO. Only 57% of the women reported that relevant information was satisfactorily covered before birth. Women reported that more issues relevant to pregnancy and fetus monitoring, birth and breastfeeding were covered satisfactorily, whereas pain management techniques, health behaviors and issues pertaining to parenthood among others were less satisfactorily covered.

#### Conclusions

More issues relevant to the pregnancy and labor were reported as being covered more successfully than issues pertaining to parenthood, health behaviors or well-being. Yet these are important for promoting the health of the child as well as the mother right after birth but also for later years. Maternal health literacy is important for the promotion and maintenance of the health of both mother and child and empowering women for successful parenting.

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## Baby-Friendly Hospital Initiative Accreditation in a Taiwan Medical

## Center: Importance of Rooming-In and Skin-to-Skin Practices

# YEUNG Chun-Yan, WU Chia-Hsun, TSAI Jung-Mei, HUNG Ta-Chuan, WANG Shu-Ling, LIN Li-Li, JIM Wai-Tim

#### Introduction

The Baby-Friendly Hospital Initiative (BFHI) was developed by the WHO and launched by UNICEF to promote quality breastfeeding care and to increase breastfeeding rates worldwide since 1991. Researchers have shown that the implementation of the Baby-Friendly "Ten Steps to Successful Breastfeeding" increases breastfeeding initiation and duration. The BFHI is the most widely promoted program for increasing breastfeeding rates. Here we explored the experience of our BFHI program with rooming-in and skin-to-skin practices in our hospital. We also compare our results to those of the nationwide survey.

#### Purpose/Methods

Rates of breastfeeding, rooming-in practice and skin-to-skin practice during hospitalization and after discharge were analyzed for a period of 3 years. Recruited subjects were healthy mother-infant pairs admitted to the maternity ward of a BFHI-accredited medical center from 2010 to 2012. Averages were compared against data in the nationwide survey published in "The 2012 Baby-Friendly Hospitals Accreditation Program: accreditation results and analysis report" from Bureau of Health Promotion, Department of Health, Taiwan.

#### Results

During the 3-year period, the average percentage of exclusive breastfeeding during hospitalization was 49.93% (37.63% nationwide), and mixed feeding with breast and formula was 98.55% (94.41%). At the infant age of 1-month and 2-months, the average percentages of exclusive breast feeding were 56.92% (44.72%) and 42.52% (37.53%) respectively, while mixed feeding with breast and formula feeding was 93.29% (87.84%) and 77.27% (76.24). The average success rate of rooming-in was 70.58% (23.65%) or 2,337 out of a total 3,311 cases. The average success rate of skin-to-skin contact was 93.58% (84.05%). Exclusive breastfeeding was significantly related to uninterrupted rooming-in and skin-to-skin practices during hospital stay (74.3% vs 15.1% (P<0.0001) at age of 1-month (64.5% vs 43.1%, P<0.01) and at age of 2-months (49.3% vs 34.9%, P<0.01).

#### Conclusions

We experienced successful rooming-in care and skin-to-skin contact. Infants have greater chance of breastfeeding and direct skin-to-skin contact with mothers. Mothers with increased familiarity with infant's natural physiology were confident raising child on their own. Our data, which were higher than nationwide averages, could be attributed mainly to our success in rooming-in and skin-to-skin contact practices.

#### Comments

In Taiwan, there were 163 BFHs in the year 2012, and these hospitals accounted for 43.82% of the total hospitals with maternity services and 75.12% total births in the country. The

percentage of exclusive breastfeeding during admission was 37.63% in BFHI-accredited hospitals when compared to 2.52% in nonaccredited hospitals. The average success rates of rooming-in care and skin-to-skin contact were 23.65% and 84.05% respectively in BFHI-accredited hospitals when compared to 3.33% and 20.44% respectively in nonaccredited hospitals. We believe that the advantages offered by the rooming-in and skin-to-skin practices in the maternity ward resulted in successful breastfeeding in the BFHI-accredited hospitals.

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## Mother's Milk and Baby Readmission Rate

## ANG Yen, PONG Kwai Meng, TAY Pai Lim, CH'NG Keat Hui, CHOO Yong Chek

#### Introduction

Human milk is universally recognized as the best nutrition choice for babies. Ample clinical evidence indicates that breastfeeding helps defend against infections, prevent allergies and protect against a number of chronic diseases. Re-admission has been used as a proxy for an unsuccessful treatment in a hospital setting. A mother with healthy and normal delivery typically is discharged within 3 days. Any readmission indicates some medical issues with the new born. There is very little data from hospital institutions in Malaysia that examines if exclusive breastfeeding reduces re-admission rate compared with baby fed with formula.

#### Purpose/Methods

The purpose of the investigation is to explore the difference between exclusively breastfed infants and those with formula supplement in terms of hospital re-admission due to reasons other than jaundice. Every baby delivered in the 12-month period from July 2012 to July 2013 at the hospital were monitored for 30 days from the day they were born to find out if they were readmitted. Feeding charts were used to identify infants who have been exclusively breast fed and those who were not. Medical records were examined to identify readmission incidence.

#### Results

A total of 336 babies were born during the period, and 8 of them were readmitted within 30 days of their birth. Five reasons were identified for readmission: acute gastroenteris, acute bronchitis, perinea abscess, bacteria sepsis, talipes. The 30-day re-admission incidence of infants with exclusive breastfeeding in the year was 1.27%, compared to 5% re-admission incidence for infants with formula supplement. There is about 4 x more re-admission rate among babies who were not exclusively breastfed. The difference between the group is statistically significant at p<0.005.

#### Conclusions

Our finding adds to the volume of research evidence supporting the protective benefits of exclusive breastfeeding. The fact that none of the exclusively breastfed babies were re-admitted due to gastroenteris or bronchitis goes to indicate that breast milk contains antibodies that help babies fight viruses or bacteria.

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## Interaction of epidural analgesia in breast-feeding

### MUSSINI Paola, VILLANI Ernesto, TIRON Camelia Gaby, ARTIOLI Rossella, DANINI AnnaMaria, BONAZZI Manuela, CERESA Susy, MOZZINI Silvia, STORTI PierVincenzo

#### Introduction

Aims The aim of this study is to analyze and compare the rates of breastfeeding at discharge, 3 and 6 months, in a group of children born by spontaneous vaginal delivery with epidural analgesia and a group of offspring of spontaneous childbirth without analgesia, in order to establish the most favourable conditions for promoting breastfeeding. Later we make improvements to variations on the findings from the survey and we will measure the results we set off by the global public health recommendation, according to which children should be breastfed for the first 6 months of life for healthy growth, development and optimal health. Recent studies there is a great diversity on duration of breast-feeding based on different modes Particulary by Wiklund (2009) shows a greater of delivery. recourse to artificial milk integration between those born by vaginal delivery with epidural analgesia and a reduction in this rate group breast-fed at 6 weeks. Unlike Wieczorek (2010), always considering a group of multiple births with previous positive experience of breastfeeding and who had given birth with epidural analgesia did not find significant differences in the rates of breastfeeding at 6 weeks. Stresses, however, that 67% of mothers of her champion has enjoyed the support of lactation consultants provided free of charge from the Canadian Government. Given this heterogeneity we thought it appropriate to see the situation in Mantua on the different modes of delivery.

#### Purpose/Methods

The first part consists of a prospective study which involves the recruitment of 130 mothers during hospitalization using information about the study, acquisition of informed consent and compiling the first questionnaire. then we proceeded to compile a questionnaire at 3 and 6 months of age of the child, by contacting by phone the mothers. The midwife devoted doctor neonatologist, project manager, provided for process data. Project managers have developed in team (physician, neonatologist doctor obstetrician, midwife, nurse of the nest, salt personnel delivery and pre-delivery counselling sessions courses) which are significant elements that make a change to improve



the rate of breast-feeding in women with spinal anesthesia. The second part is to apply improvements based on results that emerged, in recruiting a new moms group (other 40) in epidural anesthesia and collecting questionnaires to 0, 3, 6 months in a similar way. This second part allows us to measure our intervention. 1 Step: Random 130 mothers enlistment during hospitalization after childbirth, prior information on the study and acquisition of informed consent. The questionnaire concerned, in addition to personal details and delivery mode, questions regarding intention to breastfeed, breastfeeding and early integration of artificial milk January 2012: First questionnaire data processing by collecting information on the mother's level of education and participation at piams courses pre-delivery counselling sessions. March 2012: telephone interview at 3 months of age of the child and completing the second questionnaire concerning breastfeeding or artificial, the eventual upturn. June 2012: telephone interview at 6 months of age of the child and completing the third questionnaire concerning breastfeeding or artificial, the introduction of solid foods, as well as the possible resumption work July-August 2012: data processing, September-October 2012 re-process data 2° step October 2012-October 2013 second part with new enrollment of moms (40) and interviews, having measurable modification determined early breast attack (within 60 ' from birth), security enterprise and pre-delivery counselling sessions courses of ASL, support mothers in limiting milk 1 requests as integration during hospitalization

#### Results

The results of the second part of the project: October 2012 -October 2013, we enrolled 40 mothers who gave birth in our hospital with epidural anesthesia and we monitored the rate of breastfeeding through telephone interviews at 3 months and 6 months postpartum . Of these 40 , 15 lactating mothers exclusively breastfed their child at the third month of their child's life (15%) and 12 mothers breastfeed exclusively breastfed at six months of their child's life (30 %). There is therefore a worsening of breastfeeding rates previously reported (in 2012 about 40 shares with epidural 23 mothers (64%) exclusively breastfeeding her baby at 3 months and 15 (45%) at 6 months. Extraordinary structural work of the delivery room we were in fact prevented for the time being to improve the attack early breast of the newborn , but this now becomes crucial with the return in the delivery room renovated thanks to a specific project obstetric nursing . Attendance preparations then at our hospital remains small compared to the number of mothers who give birth at our hospital.

#### Conclusions

The request by the mothers during hospitalization of infant formula has increased , probably due to social and economic reasons (there are currently few mothers with a permanent job , you can indulge expectancy at home to devote exclusively to their child). These data teach us the extreme variability of breastfeeding rates which are influenced by several factors, not only of health , but also social and cultural .

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# Session M1.2: Making hospitals and health services age-friendly

Organizing integrated care for older persons: strategies in Sweden

#### **BERGLUND Helene**

#### Introduction

The increasing differentiation of welfare services, and particularly of care for older persons, calls for improved integration across the involved organizations. Older persons often have complex needs and they receive care from many different providers of health/social care and rehabilitation. There is a risk of fragmentation of responsibilities, which may result in efficiency and quality problems, such as duplications, gaps and discontinuity. This may in turn lead to concerns for the older persons, primarily dealing with unmet care needs.

#### Purpose/Methods

The purpose of the study was to analyse ways of organizing integrated care for older persons in Sweden during the past decade. The data consist of 62 cases of development work, described in official reports. A meta-analysis of cases was performed, including content analysis of each case. A theoretical framework comprising different forms of integration and strategies was applied.

#### Results

The development of local health care systems constitutes an important strategy, involving new ideas about organizing integrated care. The focus includes local care, health promotion and co-operation across organizational borders. The primary element is to stimulate innovation and new organizational approaches for older persons with specific diagnoses, (e.g. stroke and heart failure), and medical specialists located outside the hospital. However, the increasing use of contracting strategies, such as consumer choice models are characterized by differentiation and less emphasis on integration.

#### Conclusions

The development of local health care systems for older persons during the past decade appeared to be a promising strategy as regards health promotion and integration. However, contracting strategies seemed to be problematic regarding integration between organizations.

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# The Geriatric Day Service for BPSD: a model of integration between hospital and primary care

## NEVIANI Francesca, FABBO Andrea, MARCHESI Cristina

#### Introduction

Behavioral and psychological symptoms in dementia (BPSD) are one of the most critical aspects in the course of desease: they deteriorate patients health , functional competence and are highly burdensome to caregivers. Behaviors including insomnia, wandering, agitation, physical aggression and delusions, in particular, lead to medical interventions and, in some case, to hospitalization and institutionalization. It's recognized how hospitalization worsens BPSD and increases risk of falls, immobilization syndrome, pressure ulcers. It's also known that BPSD recognize a neuropathological genesis due to dementia but often are triggered by other diseases interaction (for example: infections, heart failure...), drugs, pain, environment and caregiver relationship.

#### Purpose/Methods

In order to prevent dementia patients' hospitalization we have started a Day Service (DS) for BPSD and confusional state diagnosis and treatment. DS is located into Nuovo Ospedale Civile Sant'Agostino-Estense (NOCSAE) Hospital in Modena (North Italy) and provides assessment and treatment of patients coming from all Memory Clinics situated in Primary Care Department (n° 7 centers), according to "Hub and Spoke" model. Therefore DS accepts patients with dementia diagnosis and BPSD, afferent from memory clinics and after specialist (geriatrics) evaluation, with high score at the Neuropsychiatric Inventory (UCLA-NPI), in spite of pharmacological treatment . We also accept old patients (>65 years old) from emergency room, with confusional state or behaviors including insomnia, wandering, agitation, physical aggression and delusions, not yet framed as demented patients and not in treatment. Psychiatric patients and young or middle age patients are excluded. We take charge of patients for temporary period in order to define confusional state/BPSD genesis and to treat it.

#### Results

we are taking charge, at the moment, n° 41 patients (n° 17 coming from Emergency Room and 24 coming from Memory Clinics), mean age 80,6 (sd 7,7). In according to main outcome none of the followed patients, coming from memory clinics have been sent to ER for severe BPSD and only 5 patients were hospitalized for comorbities causing BPSD.

#### **Conclusions**

DS is a model of continuity of care and of hospital-community integration, based on team work model, finalized to prevent dementia patients hospitalizations.

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# To protect the Elders' medical rights – early morning clinic

#### **CHANG Yuh-Lin, CHEN Shih-Iuan**

#### Introduction

Taiwan's national health insurance started from 1995,it guarantees and protects Taiwan citizens' medical rights successfully. According to the government statistics, the insurance penetration rate had reached 99.5%, it significantly increased the accessibility of medical treatment. And yet it resulted that every hospital's outpatients waiting time became longer and this caused many elderly people with chronic disease feeling inconvenient.

#### Purpose/Methods

The Yuli Township owns one of the largest rice fields in Taiwan. Many residents here are farmers/peasants, and also more than average elder population. Residents get up quite early. Consider this, the hospital opened its "Early Morning clinic" in 2003. The "Early Morning clinic" opens from 6 to 8 a.m. which should be the earliest service hours in Taiwan. The Early Morning clinic fits the elders' living habits well. They don't have to wait for long compared to normal clinics.

#### Results

Dated to November 2013, the Early Morning clinic served 19,764 patients, in which 51.33% aged 65 and above. The rate is higher than any other clinics. The elderly love this clinic. Our survey results showed that patients of this clinic are satisfied with the shortened waiting time that their satisfaction rate is 81.82%, 20.28% higher than patients in general clinics. In addition, patients in this clinic are very satisfied with their physician, satisfaction rate 84.76%, compared to general clinics' 75.77%.

#### Conclusions

The results of outpatients' satisfaction survey showed the early Morning clinic service has not only shortened the elderly's waiting time, their satisfaction toward the hospital's other services has improved significantly. For example, "less waiting time of medication pickup" being approved plus 20.82%, "less waiting time for "cashier and registration" plus 14.41%, "less waiting time for exam" plus 12.23%.

#### Comments

According to the government statistics, the elderly population will raise up to 16.2 in Taiwan, as an aging society by the definition of WHO. The Early Morning clinic fits the medical needs of the elderly quite well. In the near future, the Early Morning clinic hours shall be extended to other kinds of outpatient clinics including smoke-quitting and General Surgery. All in all, the goal of the early morning clinic is to bring best-quality service to the elderly.

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Tablet PC on the effect of health education for community elderly residents with health check abnormalities

### HSU Shih-Tien, KUNG Ya-Yu, WANG Mei-Chih, CHANG Huan-Cheng

#### Introduction

Nurses usually carry out health education with leaflets or verbally; after health checks, hospital provide health education on site for abnormal cases, followed by the phone tracking continuously for three months. In 2011, the prevalence rate of three abnormal laboratory tests on community elderly (N = 1179) was 59.0%, after health education, the follow-up rate for elderly with hypertension was 94.5 %, 89.0 % for elderly with diabetes, and only 49.3% for people with high cholesterol level

#### Purpose/Methods

Health check abnormality tracking requires full cooperation of the people, covered the diet, exercise, daily living habits. Health education covers a wide range, if only verbally informed the public is not easy to understand, compliance would be relatively low; since 2012 for the elderly with health check abnormalities, we start to use tablet PCs via pictures, examples, let people quickly understand their problems. Tablet PC is portable and easy to use in the community, and convenient for elderly

#### Results

In 2012 health check elderly people (N = 1110), tracking rate for hypertension is 97.4%, 96.7% for hyperglycemia, 58.4% for hyperlipidemia. Comparing whether use of the Tablet PC or not, no significant age difference, also no significant gender differences for hypertension, hyperglycemia and hyperlipidemia. After controlling for sex and age, for people with hypertension, complete traction rate using tablet PCs is a 2.2-fold increase compared to without using (p = 0.02) ; 3.6 times higher (p = 0.03) for hyperglycemia ; 1.5 times higher (p = 0.02) for high cholesterol

#### Conclusions

Landseed hospital tried to provide innovative health education service delivery for the community elderly residents, taking the advantages of scientific technology, so that help the people more effectively in the learning process. Health education using tablet PCs allows people to understand their health status, and then take appropriate health behaviors, including life, changes in eating habits, and even receive treatment. In elderly there is indeed a significant difference in the effectiveness of health education using tablet PC

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# Session M1.3: Hospitals and health services as health promoting workplaces - I

Workplace Health Promotion at the General Hospital in Linz (AKh-Linz GmbH): interdisciplinary cooperation in the fields of Work Psychology and Occupational Therapy for Patient Transport

## KOLLMANN Stefan, KIRCHMAIR-WENZEL Birgit

#### Introduction

The presented interdisciplinary project resulted from cooperation between the Work Psychology Service (WPS) and Occupational Therapy (OT) at AKh Linz GmbH, to sustainably reduce physical stress factors for Patient Transport personnel. The developed measures are based on the WPS's evaluation data regarding psychological stress at the workplace. This project led to the participation of employees of the Patient Transport Service, initiating a bottom-up process. The contribution of Occupational Therapy is based on the independent evaluation of ergonomics at the workplace. The implementation phase of the occupational therapy measures is set for the first quarter of 2014.

#### Purpose/Methods

Purpose of this health promotion project in a hospital setting is to strengthen the self confidence of employees. In the long run, this is to reduce the incidence of illnesses, especially those involving the muscular and skeletal apparatus. The project is characterized by an employee-oriented, individualized and participatory approach. The evaluation of psychological stress at the WPS workplace began in the patient transport sector with a questionnaire survey. Then, working groups were formed to develop measures together with employees to address the identified stress factors. One of the measures developed was to involve OT to evaluate the workplaces with regard to ergonomics at the workplace. The occupational therapy evaluation is related to the evaluation of working equipment, workplace furnishings, special work processes and generally required activities. Even when the objectives of the project were defined, it was determined that there will be lectures or training courses on site regarding ergonomics with practical exercise phases in a group setting. The exact preparation of content and didactics is still open at this point. Another measure already certain is that individual peers will be trained for ergonomics at the workplace. Proposed measures still to be checked can be the installation of fixed premises where employees can have breaks, the evaluation of further measures to reduce stress (focus on the lower extremities), "massage training" (also through a peer system), re-evaluation of acquired informal knowledge (annually) and other kinds of evaluation (key term: lighting situation).

#### Results

Evaluation by WPS is already completed, while the OT trials are still underway (to be completed in December, 2013). The workplace analysis of Occupational Therapy is in preparation, which is also creating a re-evaluation opportunity. The development of training courses is based on workplace analysis and is therefore still open.

#### **Conclusions**

Conclusions are still open at the time of this abstract, but will be available at the conference. From the point of view of sustainability, re-evaluation will be as useful as the continued accompaniment of employees to ensure lasting implementation.

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## Liverpool Community Health NHS Trust as a Public Health Organisation

#### **ASHWORTH Ian, GOSLING Rachael**

#### Introduction

Liverpool Community Health NHS Trust (LCH) has 3,000 staff delivering community health care to a 600,000 population across the footprint of Liverpool and Sefton in England. LCH recognizes the strong relationship between high quality care and a healthy workforce. With a large workforce and 2 million patient contacts per year, the LCH public health strategy was developed to support all staff to embrace preventing poor health and wellbeing as part of their daily interaction with patients, colleagues and community.

#### Purpose/Methods

Public health capacity and capability building of its staff is a central component to its new 'Promotion, Prevention, Protection strategy'. LCH recognised the opportunity to support all staff (including clerical) in their understanding of health promotion messages and enabling them to become public health ambassadors in their own families, communities and to their patients. Creating conditions to be a healthy place to work and supporting good workforce health for all staff is one of its 6 strategic objectives.

#### Results

The following has been achieved since March 2012; 1. LCH Health & Wellbeing Group established and workforce needs assessment completed. 2. Staff Health and Wellbeing Coordinator investment achieved. 3. Award winning flu vaccination campaign, increased staff uptake (48% to 71% in 2012/13). 4. 500 staff completed 'every contact counts'

training and delivery of 'Stoptober' and 'Dry-January' campaigns.

Staff Appraisals- Wellbeing questions included. 6.

RSPH Health Promotion and Community Wellbeing
Organisation Award and Health at Work- Workforce Charter
awarded. 7. GMC approved training location for Public
Health Registrars.

#### Conclusions

LCH is successfully establishing itself as a salutogenic organization. It has attracted investment for a Staff Wellbeing Coordinator, met expressed staff needs by providing welfare, alcohol, dementia care training, physiotherapy services and Team Building Wellbeing Days (e.g. community allotment sessions). Progress has been externally awarded. The positive impact and methods used within the LCH public health strategy provides an opportunity to share best practice with wider organisations wishing to provide preventative care and supportive environments for its staff and population served.

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Community of Practice in Healthcare as workplace environment for Nursing Students: a Pilot study

### PORTOGHESE Igor, GALLETTA Maura, SARDU Claudia, MEREU Alessandra, CONTU Paolo, CAMPAGNA Marcello

#### Introduction

In the healthcare setting, Community of Practice (CoP) can be defined as the learning environment where nursing students develop their attitudes toward the nursing profession. Despite being part of a CoP is important in preparing students for their nursing role, many authors found that "nurses eat their young" describing the context where Registered Nurses showed lack of respect to nursing students. In this sense, the clinical environment can become a negative experience to students, putting them at higher psychosocial risk.

#### Purpose/Methods

The aim of this study was to analyze student's respect perception during clinical placements. Important aspects, such as relationship with staff, feedback, tutor support, and professional role concept (role ambiguity and role conflict) were investigated as predictors of student's perceived respect. The study design was a cross-sectional, descriptive online survey. Participants were 450 second and third year undergraduate students in Nursing Science Degree Course in an Italian University. Hierarchical multiple regression analyses were used to test our hypotheses.

#### Results



Of the 188 responding students (41% response rate), 18% reported high levels of lack of respect during their experience in CoP. The relationship with the staff ( $\beta$ =.22, p<.001), feedback from other members of the community ( $\beta$ =.23, p<.01), tutor support ( $\beta$ =.16, p<.01), role ambiguity ( $\beta$ =-.17, p<.01), and role conflict ( $\beta$ =-.23, p<.001), showed significant effects on perceived respect. The variance explained for the total model was 66%.

#### Conclusions

This study explores the role of CoP as working and learning context for clinical practice of nursing students. Healthy workplaces characterized by respect, trust and high-quality relationships may reduce psychosocial risk, such as stress and burnout of both undergraduate and graduate nurses. Finally, in time of global nursing shortage, these results may be important especially for their potential relevance on future professional progression, recruitment and retention of new graduate nurses.

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## Benchmarking on Resilience in the HPH Friuli Venezia Giulia network

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#### Introduction

An integrated approach to workplace health-promotion programs should include attention to the work environment, especially in light of recent findings that show the work organization influences on lifestyle or healthy behaviors (Punnet 2009). Our HPH network is applying the salutogenesis model in order to analyze resilience factors in the workplace. The actions on lifestyle are numerous, but often fragmented. The companies in the network are organized in a different way, for this reason it is hard to import the good practices.

#### Purpose/Methods

We aim to bring out the strengths and weaknesses in our network. The check list on resilience analyzes 5 protective factors for individuals and the system: mission transparency, effective communication, decision making, lifestyle and stress management. For each factor we check 3 levels of actions. What the organization does in order to activate pathways of health? What do the services to promote adhesion of their employees? The employees are participating in the pathways? The

purpose is to obtain synergic actions and to make responsible the different levels.

#### Results

Preliminary results on life styles item:several aerobics, gymnastics, integrated neuromuscular activity, Pilates pathways for employees and citizens; development of models of intervention to promote physical activity in the workplace based on motivational interviewing Miller and Mindfulness;screening of employees to be included in courses of physical therapy for the treatment of musculoskeletal disorders;personalized advice on nutrition;process of empowerment to tackle obesity enhancing the pleasure of living;summer camps for employees' children;pathways of smoking cessation; Mindfulness training (meditation techniques) and relaxation techniques.

#### **Conclusions**

Protect the welfare of employees is a hot topic especially now that the economic crisis and an aging population have increased the care needs. It seems actually a paradox that we must "treat those who care". But, to support the increasing demand of care, it is more necessary than ever. To draw a quick overview of the strategic steps on resilience we started collecting data on adherence to programs on healthy lifestyles. In the next months we will collected data on other factors.

#### Comments

The check list on Resilience makes easier the benchmarking among the HPH members on organizational well being. In our comparison we see that are more attractive the pathways on lifestyles offered to employees and citizenship together, while the pathways offered only to employees may be perceived as an extension of the work. In our vision this represent the need to break away from the role before they can invest in their wellbeing.

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## A Study of Well-Being Prediction Model of Nurses' Well-Being in Hospital

### CHUNG Hui-Chung, HSIEH Tsung-Cheng, CHEN Yueh-Chih, CHANG Shu-Chuan, LIN Jin-Ding, HSU Wen-Lin

#### Introduction

People pursue well-being, Therefore, well-being has become a key measure of political achievement. Clinical nurses are responsible for improving patient well-being; however, it remains unclear how nurses perceived well-being and which factors affect the well-being of nurses.

#### Purpose/Methods

This report is a study to exploring the well-being of nurses and significant predictive factors in a medical institution. The study involved a cross-sectional related survey of nursing staff members at a teaching hospital . The questionnaires were distributed using cluster sampling, and 375 completed surveys were collected.

#### Results

Nurse well-being was composed of 2 major construct dimensions,one is joy and the other is comfort. There were 7 significant predictors explained 63.9% of the variance in the well-being distribution(R2=.639). Compared with nurses who perceived themselves healthy ( $\geq$  6 points), those who perceived themselves as unhealthy ( $\leq$  6 points) averaged 2.0 points higher in well-being(B = 2.0, p=.01). "positive outlook " was the major significantly influenced the nurses' perceptions of well-being( $\beta$ =.48, p<.001).

#### **Conclusions**

A positive outlook on life, interpersonal interaction, adequate nutrition, perceived good health status,teamwork and mutual respect, salary and professional assistant all contributed to the joy and comfort of the nursing staff members.

#### Comments

We assumed that when healthy nurses worked in an environment that promoted nurse well-being, it enhanced the quality of care; thus, improving nurse well-being is a crucial task of hospital administrators and governmental agencies.

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# Session M1.4: Health promoting community outreach activities

Dipsalut promotes a collaboration program between municipalities and health services to respond in psychological emergencies

## FRAU Jordi, BATLLE Pau, ESCATLLAR Anna Maria, OLLER Gemma, JUVINYÀ Dolors

#### Introduction

The main goal in psychology care is to assist victims during acute phase of trauma, in order to empower them and to reduce psychopathogenic potentials, so they promptly recover their resources and adaptative mechanisms to better face the painful process they have just began. Dipsalut promotes the "Program to support and psychological care in emergency situations in the

municipality" which offer to Girona municipality's psychological care in crisis situation, emergency, disaster, catastrophe or sexual assault; and training to emergencies professionals.

#### Purpose/Methods

The program is organized by an emergency team of psychologist who move to the place of the emergency to assist victims and offer support to the professionals of the different health services and to the intervention emergency professionals involved. Its activation depends on the territory network of municipalities and emergency agents. Training of professionals through the "psychological first aid course to intervention teams". Psychological first aid training and in self-psychological techniques aimed specifically at members of intervention teams.

#### Results

Since its implementation the program has been applied in 4 interventions in 2010, 4 in 2011, 15 in 2012 and 13 in 2013. 214 professionals have been trained. 45 as program managers and 169 as intervention team members. This means one edition per year since 2010 of municipalities' program managers training and 2 editions in 2010 and in 2011, 4 in 2012 and 2 in 2013 of intervention team member's training.

#### Conclusions

The collaborative and participatory work method of Dipsalut psychology emergency team with Health Care professionals (Hospitals, Mental Health, Medical Transport...) enables a holistic care of the victims, which affects their empowerment, thus enhancing a faster trauma recovery and preventing the emergence of psychopathologies. Moreover, psychological first aid training and a closer collaboration within hospital professionals have a positive effect in promoting mental health and wellbeing of the potentially tertiary victims, thus promoting a more salutogenic culture for healthcare professionals.

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# Improving health outcomes and patient experience through collaboration and engagement

#### **CHOWDHURY Minara, DANIEL Colene**

#### Introduction

Hamad Medical Corporation (HMC) is the principal healthcare provider for Qatar to a diverse population of 2.2m. The country has experienced one of the highest population growth rates in the last decade. This demographic growth coupled with increasing life expectancy is placing unprecedented demands on the healthcare system. To ensure the sustainability of health in Qatar, HMC has to find new and innovative ways of dealing with this rapid growth of high risk patients with chronic or long-term medical conditions.



#### Purpose/Methods

Over the years HMC has had to respond to the changing health needs Qatar's population and has over the last 24 months transformed services to respond to the management of the top 5 chronic diseases. HMC has through internal consultation and patient engagement redesigned services to be more patient-centric and provide the safest, most efficient and effective care. The Corporation has used the Plan Do Study Act cycle to continuously improve care pathways specifically in the 5 chronic disease areas.

#### Results

The initiatives have resulted in positive patient outcomes. We have implemented an evidence-based appointment and management system focused on clinical referrals for diabetes, cancer, and cardiovascular patients with the shortest time periods for first appointments. During 2013, 1167 cancer referrals were processed within 48 hours of receipt from Primary Health Care Centers. Clinicians and management identified opportunities for patient collaboration, which led to the development of the Patient and Visitor Service Centers, patient comment process and patient advocacy initiatives.

#### **Conclusions**

Without the collaboration and engagement of patients and staff, it will not be possible to design services to provide timely care to patients. Initiatives such as the Patient and Visitor Service Center take a proactive rather than reactive approach to collaboration, in a culturally diverse environment where providing feedback may seem disrespectful. Involving patients in designing the Referral and Booking Management System eliminated 179,913 wasted patient journeys in 2013 and 47,000 slots were reallocated to patients following confirmation of non-attendance.

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# Promoting community participation in expanded programme on immunization in Keea District of Ghana

#### **YAWSON Mercy**

#### Introduction

Community participation is a proven approach to addressing health care issues and has been utilized in the Expanded Programme on Immunization (EPI) activities. Poor community participation on the programme was due to a number of factors which influencing the willingness of community members to fully support the EPI programmes. This paper was to investigate factors influencing community participation in EPI activities in

Elmina Sub-district so as to streamline strategies to promote health through community participation in the EPI programme.

#### Purpose/Methods

The study was conducted in Elmina Sub-district in the Central Region of Ghana. A sample of 271 adults (18 years and above) from 31 communities was used for the study. Quota sampling was used to ensure geographical representation of the sample units in every community. A research-developed questionnaire was used for factual collection of data from respondents with which one trained personnel guided the respondents in answering the questionnaires. Logistic regression was the statistical technique used in analyzing the data.

#### Results

It was found that females dominated (52.4%), as majority of the respondents (80.1%) were between 18 and 40 years. The study also revealed that attitude (sign.= .001) is a major significant factor that influences community members participating in the EPI programmes. However, sex (sign.= .071), perception (sign.= .149), years of schooling (sign.= .445) and years of stay in the community (sign.= .548) had an insignificant influence on the community members participating in the EPI programmes.

#### Conclusions

Attitude was identified as a factor which had a significant impact on the EPI programme. Thus, the attitude of people towards the EPI programmes needs to be addressed and considered in policy making and implementation.

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## Drive Patients Home Safely: A Pioneer Easy-Access Bus Service Provided by Hospital

### LEE Wen Chieh, LIN Hui Ching, HUNG Ling Yu, TSOU Jhi Chyun, MA Hon Kwong

#### Introduction

It is difficult for discharged inpatients to find a mode of transportation going home if they have to use a wheelchair and with a lot of personal belongings. Getting in and out of the vehicle will be a huge problem for these patients even with assistance. Neither taxi nor private car is a good option. Our hospital tries to solve the problem and make discharged inpatients going home safely.

#### Purpose/Methods

Our hospital purchased an Easy-Access mini bus and hired a driver especially for the service since 2012. Inpatients who cannot walk properly or need to use a wheelchair can make a reservation for the bus service with a minimum charge when they go home.

#### Results

472 persons have used the Easy-Access mini bus service from February 2012 to November 2013. The average age of these patients is 75 (from 19 to 102). 83% of these patients live in Yonghe and Zhonghe District, New Taipei City which is also the main service area of our hospital. 34.6% of these patients come from the orthopedics department. A questionnaire is administered in 169 patients and 97.63% of them are very satisfied with the service.

#### **Conclusions**

It is a pioneering work for a hospital to provide the Easy-Access mini bus service to drive patients home. It might cost a lot and unable to make a profit, however, it is priceless to show God's love through medical care, to make patients more satisfied, to give a better service for the community, and what a catholic hospital should do.

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# Session M1.5: Making hospitals and health services more health-literate - I

Health promotion using text messaging for lifestyle modification in obesity

## AHN Ahleum, CHOI Jaekyung, OH Eunjung, KIM Seonah

#### Introduction

Many koreans use the mobile phone, so mobile phone messaging can be good modality to health promotion. Mobile phone messaging has been used for lifestyle modification in obesity. This study aims to investigate whether one-way text messaging to lifestyle modification is effective for obesity.

#### Purpose/Methods

total of 80 outpatients with obese (body mass index > 25kg/m2) was randomised to either text message group(n=39) or control group(n=41). Text message group received text messages about exercise, dietary and general information of obesity three times a weeks. Participants were measured to body mass index and waist circumference at baseline and 12 weeks.

#### Results

The text message group(n=25) and the control group(n=29) visited in hospital in 12 weeks. Adjusted for body mass index at baseline, body mass index at 3 month in text massage group was

significantly lower than control group.(27.9 vs 28.2; p=0.02) Adjusted for waist circumference at baseline, the difference of waist circumference between text message group and control group at 3 month was not significant.(93.4 vs 94.6; p=0.13)

#### Conclusions

The one-way text messaging may be a useful modality of lifestyle modification in obese patients.

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A structured process to develop animated information vignettes with a health literacy level 2 that parents of young children can watch in waiting rooms

## VALDERRAMA Alena, SAINT PIERRE Nicole, COLIN Christine

#### Introduction

Each year in Quebec, 72% of households with one or more children aged 14 years and under consult a health care service at least once. Waiting rooms therefore represent an opportune space to communicate information to parents. As part of a Health Promoting Hospital approach and to reach at least 80% of the population, we decided to produce information vignettes that meet a literacy level 2, as 50% of the population does not have a literacy level 3, or the minimum required to meet the requirements of a complex society.

#### Purpose/Methods

We developed silent animated vignettes that last approximately 3 minutes, that are meant for the parents of young children, and that contain 5 to 8 key prevention and health promotion messages. The development process includes six steps: 1) selection of messages, 2) creation of messages (with a verification of the literacy level), 3) choice of illustrations, 4) validation of the content and format, 5) vignette layout, 6) evaluation and rollout plan.

#### Results

Before the final production step, the vignettes are submitted to a scientific advisory committee of experts in pediatrics, health promotion and communication. A questionnaire was used to evaluate parents' acceptability of the initial vignettes, and 85% of the parents surveyed appreciated the vignettes. A guide for users in the network and a vignette development guide will also be developed.

#### Conclusions



These vignettes have an original format and content and have been developed based on a structured and thorough process. The development process accounts for literacy criteria, readability criteria, and the intelligibility of evidence-based data. The evaluation sheet could be validated so that the vignettes could be distributed to a wider audience in the health care network.

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## "Total Community Health" through our local health promotion and education network

### HAYASHI Misao, WONG Toh Yoon, HAMAZAKI Shinobu, MURATA Hirohiko

#### Introduction

Hiroshima Kyoritsu Hospital, which is situated in the largest and most populated district of Hiroshima city, caters to a community of about 235,000 people by providing services ranging from acute care to rehabilitation programs. Since 2011, we have been actively collaborating with our local public administration to support health literacy through an education network. In this network, we partner with neighboring healthcare institutions to provide education resources and seminars on current health topics.

#### Purpose/Methods

This presentation aims to describe and evaluate the progress of our health education network. We will also review public feedback towards our health seminars using questionnaire surveys.

#### Results

From 2011 to 2013, we conducted a total of 32 seminars. Current health issues dealt with include Cardiovascular Disease Prevention, Alcoholism, Tobacco & Health, Children's Health, Dementia and Radiation Exposure. Attendance ranged from 20 to 87 participants per seminar and partnerships have been established with 9 different institutions to maintain our education network. From questionnaires collected, public feedback has been overall positive with more than half of attendees being regulars.

#### **Conclusions**

According to a systematic analysis for the Global Burden Disease Study 2010, Japan has the highest healthy life expectancy out of 187 countries (70.6 years for men and 75.5 years for women). Health literacy plays an important role in maintaining a healthy community. Therefore, continued effort to strengthen our education network will be needed to promote our goal of "Total Community Health".

#### Comments

Other health literacy promoting activities including those conducted by our satellite clinics will also be introduced.

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## Health education courses in the street: A service to the citizen

### ROCHE Enrique, FABREGAT Neus, GALLARDO Gemma, FERNÁNDEZ Santiago, MORENO Cristina, JOVER Anna, ALONSO Tomás

#### Introduction

As part of our corporate social responsibility, Hospital Plató, an institution located in Nort-East Barcelona that cares for the well-being of its citizens, promotes well-being through short health education courses. Therefore, during 2012-2013 we organized street open-days in the squares of our area of influence. The subject chosen was about cerebral vascular diseases because it has a high prevalence, high impact in terms of morbidity and mortality, and because with preventive strategies, the course of the disease could be improved.

#### Purpose/Methods

We organized five open-day courses, where citizens participated spontaneously. Curious visitors entering a circuit formed by a nurse, a neurologist and an angiologist, conducted education on vascular risk factors, stroke and finally took a carotid ultrasound. If the result was pathological, the patient was advised to go to the doctor to complete the study. We analysed participation in the activity, demographics aspects, possible presence of vascular risk factors and carotid ultrasound results. Finally, we evaluated overall satisfaction of participants.

#### Results

The total population recruited during the five courses were 415. Of those, 200 were analysed in detail: Median age was 59.5 years (range 19-18), 164 participants (82%) had at least one vascular risk factor, 77(47%) had one, 50 (25%) had two and 37 citizens (22%) had 3 or more. Common risks factors were hypercholesterolemia, sedentary and hypertension. Carotid ultrasound was abnormal in 40 patients (light in 21, moderate in 12 and significant stenosis in seven persons). Satisfaction rate was 90%.

#### Conclusions

Overall, Hospital Plató has successfully met its corporate goals. We covered our area of influence and alerted our citizens about the symptoms of cerebral vascular diseases. Participation was high and citizens expressed their satisfaction for organizing these events. Participants were able to learn, get informed and

understand ways of prevention and react to acute strokes. As the majority had vascular risk factors they could be more aware of the importance of controlling these factors to improve their health.

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# Session M1.6: Approaches towards more health promoting healthcare systems and services

Impact Of "Capitation Program" implemented By Taiwan National Health Insurance (NHI) On Hospital HPH Policy

### NEOH Choo-Aun, CHEN Mei-Chi, LIAO Yu-Kuei, SHIAO Li-Chen, YU Kwong-Leong, TOK Teck-Siang

#### Introduction

Health literacy is increasingly recognized as a social determinant of health and as such an important foundation of population health which should be enhanced by the healthcare sector, but usually lack of initialtive from medical personnels and hospital management pespective. "Capitation Program" implemented by Taiwan National Health Insurance (NHI) encouraging hospital managing policy toward more patient-oriented healthcare health literacy. Because the more the public become more health literacy, less sickness, less medical usage and more income for the hospital.

#### Purpose/Methods

Our hospital join the Taiwan National Health Insurance (NHI) trial "Capitation Program" since 2012. We evaluate the impact of the Capitation Program by indicators requested by the NHI.(eg. improved CKD classification (eg. From stage 2-)stage 1); or improved in eGFR, blood pressure control: <130/80 mmHg, Diabetic control HbA1c control: <7.0%. LDL control: <130 mg/dl, smoke cessation continue more than 6 months.)

#### Results

8561 people joined Capitation Program in 2012, among which 1756 were hospital workers, 6805 were our hospital loyal patients. To have a better health promotion, health literacy, case management, a new strategy that included cancer case manager, Pre- ESRD, CKD case manager, case manager. nurse disease management team and medical checkup center. Patients enrolled in the Capitation Program underwent significantly lower physician visits, ambulatory expenses, expenses for all health services in

the model of hospital loyal patient and hospital workers after enrollment.

#### Conclusions

Capitation Program can only be successful if a hospital promote HPH acitivites. The program seemed to decline the physician visits of the model of hospital loyal patient. It is a great opportunity to promote HPH in hospital when the government is promoting the Capitation Program We suggest that it is necessary for BNHI to have a closer link and be close work partner to HPH association and to evaluate the long term effect on health care utilization outcomes of the Capitation Program.

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## Quality Plan and Questionnaires of Advanced Course on the HPH Recognition Project

## SHIEH Ying-Hua, LIU I, CHIOU Yin-Chi, LI Chun-Ying, CHAN Hsiao-Wen

#### Introduction

Department of Family Medicine of Wanfang hospital has carried out a project of HPH and continuously promotes "health quality" activities based on the service vision of quality. Hospital administration and all employees are committed to the "better working environment is the healthy place to stay" as the crucial ingredient of service goal

#### Purpose/Methods

We collect 240 questionnaires totally provided by HPH projects, 190 for patients (inpatient and outpatient), 50 questionnaires for staffs. The questionnaires for included physical health, mental health, pain, health-related limitations, satisfaction, follow-up instructions, awareness of health promotion policy, safety, risks and work-related injuries, introductory health promotion training, staff assessment, absenteeism, burn-out. According to the result, we will establish quality improvement plan and performed follow-up survey one year later

#### Results

The data was analyzed and revealed 3 major problems in our patients: overweight problem(Body-Mass-Index>24) in 53.2% patient; smoking problem(Smoke>10 cigarette per day) in 9% patient, physical inactivity(< 150minutes exercise per week) in 85.2% patient. The data was also analyzed for our staff and revealed 2 major problems: Felt Burn out for last one month in 46% staff, physical inactivity in 78% staff. Staff with smoking problem are all transferred to smoking cessation clinic

#### Conclusions



Through this HPH project, the progresses in the health promoting programs for the patients and the staff are recognized. We also use health promoting evaluation questionnaires to evaluate our patients (inpatient and outpatient) to evaluate their health promoting issues and use the results to decide to transfer the patient to smoking cessation clinic/weight reduction clinic or receive health education. The project can be treated as a self-evaluation program and quality plan for the hospital management

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Study on a Pre-hospital project of Republic of Korea(ROK)-type HPH 'Regional Cardio-CerebroVascular Center(RCCVC)' - Improving public awareness of Acute Myocardial Infarction(AMI) warning signs

### KIM Hee-Sook, LIM Young-Shil, PARK Hye-Kyung

#### Introduction

The South Korean 'RCCVC'(which deals with cardiocerebrovascular diseases-AMI, stroke- as target diseases) is similar to the second type among 4 types of HPH organizational approaches. RCCVC provides a comprehensive hospital-based disease management fit for these acute diseases, i.e., prehospital services(such as campaigns to raise early symptoms awareness) related with public health & community outreach for health promotion, in-hospital services(like prompt reperfusion therapy and patient education) during admission, and posthospital services(like building delivery system for community-connected rehabilitation, etc.) after discharge.

#### Purpose/Methods

This study aims to evaluate the improvement of public awareness of AMI early symptoms. We used proportional quota sampling by gender and age based on the 2010 census(aged 19 to 79 years) and a total of 9,600 residents were sampled. A structured questionnaire was developed for assessment of AMI awareness(AMI early symptoms(early symptom 5 items, trick 1 item), advertising exposure, major chronic conditions(hypertension, diabetes, dyslipidemia), etc.). The survey was conducted using RDD(Random Digit Dialing) from October to November 2012.

#### Results

The most commonly identified AMI symptom was 'chest pain and discomfort' (79.1%) followed by 'shortness of breath' (70.2%), and 'feeling weak or lightheaded' (49.4%). Exposure rate of advertising was increased from 20.1% (2011) to 26.7%. The rates of

recognizing ≥1 symptoms and 5 symptoms increased from 86.3% to 88.7% and from 10.3% to 10.9% respectively, but not significant. Knowledge on symptoms was influenced by exposure to advertising. There were no differences in the levels of knowledge on symptoms according to having chronic conditions.

#### Conclusions

Acute treatment is the key factor to reduce mortality from heart attack. To reduce the delay time from symptom onset to hospital arrival, public health efforts to improve awareness of AMI symptoms are essential. This study was the first national and representative survey result to investigate AMI awareness in the general Korean public. Based on findings of this study, public education efforts must continue and should focus on groups at risk of AMI in the community(and the hospital too).

#### Comments

Dear reviewers, Please select this abstract and give me an opportunity to introduce Korean model of HPH and related projects. Actually, this is the second time I submit an abstract. I attended the 21st HPH conference last year and presented a 'mini oral'. And I would like to participate to HPH conference annually to introduce and share our fruitful outcomes heartily. Thank you for reading this abstract. (I work in the Korea Centers for Disease Control and Prevention(KCDC), South Korea).

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## Cheshire and Merseyside (UK) Healthy Providers Network (CMHPN)

## GRADY Elizabeth, GOSLING Rachael, ASHWORTH Ian

#### Introduction

The Cheshire and Merseyside Healthy Provider Network (CMHPN) was established in July 2011 and is comprised of acute and community health provider organisations from the region of Cheshire and Merseyside, England. CMHPN is a unique collaboration of healthcare organisations providing a joint approach to improving health and wellbeing of their patients, clients, and employees all within the different communities they serve. CMHPN supports members to aspire to gain Health Promoting Hospitals (WHO) and/or Royal Society of Public Health accreditation.

#### Purpose/Methods

CMHPN contributes to all three sub themes of the 22nd HPH conference via their four deliverable objectives: • Coordinate consistent and tailored network wide health promotion campaigns to different population groups. • Work collectively to identify opportunities and enablers to implement health promoting strategies within acute trusts/provider settings, benefitting staff, clients, their families and communities. •

Support provider organisations to aspire to gain Health Promoting Hospital (WHO) and/or Royal Society of Public Health accreditation (RSPH). • A shared repository of best practice documents.

#### Results

- CMHPN increased its regional membership to 10 NHS trusts. Members include adult and paediatric specialist acute, community mental health, high secure services and community health care trust providers. In 2013, CMHPN has supported two member organisations in gaining WHO HPH and RSPH status.
- The annually agreed CMHPN health promotion plan develops tailored campaigns to different population groups. This provides a unique mechanism for disseminating consistent and effective communication from national and local campaigns e.g. smoking 'Stoptober' and alcohol 'Dry January'.

#### **Conclusions**

CMHPN has provided reinforced support, steer and direction to individual health care organisations in developing and implementing their health promoting strategies and gaining WHO/RSPH accreditation. Accumulatively, CMHPN organisations come in to contact with thousands of staff, contractors, patients and their families as well as being major community assets. The impact of the CMHPN has been recently recognised by the CMDPH and PHE who have pledged their support to CMHPN in developing resources to support and attract new health promoting providers.

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How to effectively create a personal health care cloud –Show Chwan Health system as an example

## HUANG Kuan-Kai, LO Cheng-Chin, LIAO Yachiu, HUANG Kuan-Ling, SHIEH Jiunn-I, LI Yu-Chi

#### Introduction

By the computing power of the cloud and the mobility through the clients' devices, the status of the clinical condition in the patient can be quickly updated is currently a very hot topic. Because Of the previous limitation of terminal devices, mobile room visit can not be implemented.but after the entire tablet PC appears, the opportunity to implement the use of ios or android applicable in clinical services.

#### Purpose/Methods

Showchwan health system has collaborated with China Telecom by introducing the first ipad used to transfer medical images in different hospitals of show Chwan Health system. China Telecom used their MO service to push mail of transferring the medical images of the patients(such as ECG, CT, X-ray) at 21st June 2011. The doctors can make a tentative diagnosis by using the high resolution ipad devices. This has Improved the remote diagnosis of medical images immediacy and precision

#### Results

The main outcome after implementing iPad room visit is to shorten the communication gap between doctor and patient. In the past, it is a very challenging skill for the doctor to explain the treatment status and disease progress by using verbal only without images on the iPad. By using iPad, the laboratory results and images can be displayed clearly for the doctor to explain to the patient and enhanced the doctor-patient relationship as well.

#### Conclusions

Small to middle sized hospitals in Taiwan usually have limited informatics manpower and funding, it is difficult to create a complete medical decision support system, nor follow the acts with government health insurance policy, thus uneffectively to control the repeated medication and examination in laboratory and images. Therefore, President Huang Minho of show Chwan health system leading the cloudyfication of EHR as to hsare the informatics resources among the mid to small sized hospitals.

#### Comments

The collaboration of medical professionals and informatics in building a health cloud is the most important factor to success. The maturity of cloud technology and the efficiency to use clinically has been an important issue especially in propogating to the market of the mainland China.

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# Session M1.7: Supporting the creation and maintenance of smoke-free health services

The communication strategy of a Tobacco Control Unit

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#### Introduction

Communication and information technologies (ICT) are rapidly developing. ICT's are essential for spreading the activities of health promotion and cancer prevention from a Tobacco Control



Unit. The purpose of this presentation is to share our experience adopting this ICT's into our communication plan strategy.

#### Purpose/Methods

The communication plan covers the different working lines of the unit: research, coordination of tobacco control networks (one global and the local) and a tobacco cessation unit. Personal branding activity is made through social media for the members of the unit. To reach our target (other tobacco control professionals and general public) we have created three websites and one thematic blog about tobacco control (www.tobaccorelated.org) and profiles on the social networks (Twitter, Facebook, Slideshare, Flickr, Pinterest).

#### Results

The thematic blog "Tobacco Related" has got almost 33,000 visits in 18 months. The Global Network for Tobacco Free Health Care Services website (www.ensh.org) informs 21 national/regional networks and the Catalan Network of Smokefree Hospitals website (www.xchsf.com) provides information to 70 affiliated health care centres. The Tobacco Control Unit activity is also spread through the corporate website http://bioinfo.iconcologia.net/en/programa-tabac and a Twitter account (https://twitter.com/tobaccorelated). The communication plan is operated by a specialized member of the Unit.

#### Conclusions

It is important to have a communication plan. At the initial stage (2010-2013) we have developed the tools to target health professionals and other specialized profiles. From now on we will keep this line and also invest resources and efforts to reach a more general public with health promotion messages on cancer and tobacco prevention.

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## The Perimeter Problem: The edges of smokefree environments

#### **CORBEN Kirstan**

#### Introduction

Smokefree environments are recognised as effective tools in supporting smoking cessation, including in health service settings. While those who continue to smoke, typically smoke fewer cigarettes, they generally relocate their smoking to the perimeter of the smokefree environment. In the case of The Alfred, and many other major metropolitan health services in Melbourne, Australia, the highly visible nature of this smoking can challenge public image and present risks of passive smoke exposure for those entering and exiting health service sites.

#### Purpose/Methods

Objective: •To reduce the rate of smoking around the perimeter of The Alfred whilst maintaining the integrity of a Totally Smokefree environment Methods: •Establishment of an evidence based, pharmacy led approach to clinically manage nicotine dependency among inpatients •Development and implementation of a range of communication strategies to engage patients, visitors and employees in supporting a Totally Smokefree environment •Collaboration with the City of Melbourne to develop opportunities to formally designate sections of footpath space surrounding The Alfred as smokefree

#### Results

Smoking around the perimeter of The Alfred reduced by 64% between January 2012 and January 2014. This reduction was most significant among patients (81%) coinciding with the introduction of improved clinical management of nicotine dependency among inpatients. Strong support exists among patients, visitors and employees (89%) for the formal designation of sections of perimeter footpath space as smokefree. Innovative environmental art strategies are intended to naturally facilitate compliance with this extended smokefree environment and backed by local law.

#### Conclusions

Alfred Health has demonstrated significant reduction in perimeter based smoking whilst maintaining the integrity of a Totally Smokefree health service environment. Clinical support for people who are nicotine dependent appears a central factor in managing the smoking which takes place around the perimeters of smokefree environments. Formal designation of sections of perimeter footpath space as smokefree may be tested by Alfred Health and the City of Melbourne for its effectiveness in further addressing smoking in these locations.

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# Big Brother is watching: Examination of CCTV footage of designated smoking area

## HEFFERNAN Emma, GILROY Irene, CLARKE Anna, CAMPION Emma, FADARE Victoria, CONLON Greg, DOHERTY Kirsten, DALY Leslie, FITZPATRICK Patricia, KELLEHER Cecily C

#### Introduction

In 2009 St. Vincent's University Hospital, Dublin became the first hospital in Ireland to adopt a campus-wide smoking ban. The hospital has a footfall of approximately 2,500 people per day. Smoking is prohibited on campus except for a limited set of exemptions. Under certain conditions patients are permitted to

smoke in a designated smoking area on the hospital grounds (e.g. terminally illness). This study documents the use of this designated smoking area over a defined time period in 2013.

#### Purpose/Methods

Routine CCTV footage from outside the door of the smoking area, recorded on a Monday and a Saturday of a randomly chosen week, was viewed. Information recorded included: (a) day and time (b) if the person entering was a patient (i.e. person in pyjamas and/or with a drip and/or a visible armband), nonpatient alone (e.g. visitor) or staff member, and (c) if a patient was: (i) a wheelchair user (ii) accompanied by another person (iii) accompanied by a staff member.

#### Results

Within a time frame of just under 60 hours of observation, the smoking shelter was used on 189 occasions. Repeated use by a small number of people made up the majority of entries; eight patients made up 70% (n=80) of all 115 patient entries, 7 staff members entered 34 times and there were 40 non-patient entries. A greater porportion of the entries took place on the Monday (65%) than during the same period on the Saturday (35%).

#### Conclusions

Observation of the shelter revealed noncompliance by a small number of staff and non-exempt patients. Further emphasis has been placed on addressing patient noncompliance at ward level. This review took place when access to the smoking area was not restricted. Swipe access has now been reinstated. Continuous monitoring of a ban like this is essential.

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# Session M2.1: Health promotion for young patients and adolescents

Processes of enhanced selfunderstanding during a counselling programme for parents of children with disabilities

### HAUGSTVEDT Karen Therese S, GRAFF-IVERSEN Sidsel, BUKHOLM Ida Rashida Khan, HAUGLI Liv, HALLBERG Ulrika

#### Introduction

The stress and burden on parents of children with disabilities are well documented, and the parents' way of handling the situation is crucial to the health and well-being of all family members, including the child with special needs. We conducted a group-based counselling programme for parents, mainly based on Gestalt education and personal construct theories, aiming at increasing the parents' ability to cope better with the situation.

#### Purpose/Methods

The aim of this study was to explore the parents' experiences from their processes of change related to the counselling programme. This qualitative study is based on modified grounded theory. The study examines the experiences of 67 parents (of them, 29 fathers) of children with disabilities after they had finished their sessions of the counselling programme. Data were collected in nine focus-group interviews.

#### Results

The categories developed were: Feeling motivated to communicate; Describing oneself in new words; Being inspired to experience one's own emotions; Being more present and in charge and Making a difference by taking new steps. The core category was Improved handling of the situation by enhanced self-understanding. The parents needed security, but also challenge to experience more of ones' own emotions, thoughts and bodily reactions. Existential issues also made them able to find new priorities and possibilities to handle the situation.

#### **Conclusions**

The parents described how processes of awareness and self-reflection were supported by being together with others who had relevant experiences, but also by the involvement of skilled, challenging counsellors. Being able to detect more of what was important to them and recognise ones' own reaction were essential to their process towards enhanced self-understanding. The enhanced self-understanding helped them to new priorities, possibilities and new ways of acting. These experiences might be relevant for the conduction of future counselling support to parents of children with disabilities.

#### Comments

Health Literacy has been defined as ... "skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health. Health. (...) By improving people's access to health information and their capacity to use it effectively, health literacy is critical to empowerment." (WHO). From "enhanced self-understanding" our participants described their increased motivation and improved capacity, as they could realize their needs and know their resources to cope better with life.

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Developmental transition or cultural differences? An overlapping cohort study for learning adversities and emotional/behavioral problems among children of cross-cultural and normative-born families in Taiwan

## YONG Su-Boon, YANG Hao-Jan, HUANG Sheng-Shiung, LIN Jiun-An, LEE Szu-Hsien

#### Introduction

The aim of this study is to clarify whether the learning and nonadaptive problems of children of cross-cultural family are derived from cultural differences or they just a phenomenon of developmental transition.

#### Purpose/Methods

We recruited a total number of 359 children of cross-cultural families and 927 children of native-born families from 1st to 8th graders in central Taiwan. The GPA (grade point average) was divided into two categories: literacy-related courses such as Chinese Math and non-literacy-related courses such as Art and Physical Education (PE). Emotional/behavioral problems were measured by Center for Epidemiological Studies Depression Scale (CES-D) from children and Child Behavior Checklist (CBCL) from parents to compare the trends between the two groups.

#### Results

During the eight grades, there were no differences on Art and PE and internalizing and externalizing behaviors between the two groups. However, the difference on literacy-related courses decreased by grade before 4th grade, yet slightly increased after 5th grades. The depressive symptoms of cross-cultural children were higher before the 4th grades, but reversed after 6th grade. The multiple regression analyses showed an interaction between mother nativity and grades on all literacy-related courses, but not non-literacy-related courses, and depressive symptoms.

#### Conclusions

The results of our study support that the learning and adaptive problems of children of cross-cultural family are results of developmental transition, and this may due to the insufficient social capital and educational resources in cross-cultural families.

#### Comments

As the cross-cultural family in Taiwan is composed of one nativeborn husband and one immigrant wife and their native-born children, our results may not be generalized to other countries where people immigrated from other countries with whole families.

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#### Unplugged

#### **MICOSSI Simonetta, CICCONE Luciano**

#### Introduction

"In Adolescenza" ("Into Adolescence") is part of the "Gaining Health" program, which in 2010 proposed to public health services around Italy a set of good practices for promoting young people's health.

#### Purpose/Methods

The Health Services n° 4 "Medio Friuli" complied to the "Unplugged" project, born to prevent adolescences' substance addiction, based on the implementation of 12 didactical units, by teachers, which work on "life skills" reinforcement; teachers are teached by a group of local trainer, trained in turn by the Piemontes' leading team .

#### Results

The Health Services n° 4 organized a training session for different health operators all around the Region, proposing the project to all the schools of Udine's territory. On April, 2011, 24 "local trainers" were trained; from september to november, 2011, had been organized 8 training sessions for school's teachers , in which had attended 112 teachers who intercepted 1130 pupils.

#### Conclusions

"Unplugged" introduced the life skills education in local schools throught a validated program, helping public health services in claiming the inefficacy of class-spot-intervention managed by a health operator and offering a chance of let teachers experimenting new methodologies for communicate health messages in an effective way.

#### Comments

This model of work depends on the ability of stable planning between the two settings (school and health) to share languages and methods on life skills. In our vision, It's necessary to renew the work patterns lifestyles by integrating life skills into the curriculum of teacher training. The presentation is part of the proposal of Friuli Venezia Giulia HPH Network for a workshop on

Life Skills and Peer Education to promote Life Styles in young people

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# Session M2.2: Improving health promotion and safety for older patients and citizens

Community Healthcare Promotion - preparing for aged society in Thailand

### POONPANICH Yutthana, UTHAISAENGPHAISAN Saengnapha

#### Introduction

The healthcare promotion for rapidly growing of elderly population has been an important public health challenge in Thailand since it became an aged society in 2009. Healthcare system has been reoriented and a fast track elderly clinic project has been launched to better serve the elderly. However, concerted effort from other agencies, besides public health sectors, is not yet well observed. Local Administrative Organizations (LAOs) lack information and firm evidence for sound investment in the community health.

#### Purpose/Methods

This qualitative study aimed to justify appropriate healthcare promotion projects for the elderly in Thailand's community settings, to analyze cost for such projects, and to provide initial costing for LAO's policy decision making. Both Thai and international literature was reviewed systematically. Results was a set of preferred healthcare promotion projects for groups of elderly, based on their Activities of Daily Living: ADL index. Standard costing method was applied to produce an equation to approximate LAO's investment in implementing projects.

#### Results

Results showed that a preferred project for socially-bound elderly was an establishment and participation in elderly clubs, to maintain good health. A project for bed-bound elderly was home visits, to assist daily activities. A project for bed-bound elderly was home care by care givers, to relief burden on families.in costing, full cost was a sum of costs of all 3 projects (Unit:Baht). Full cost = 73,030 + 78.82\*elder1# + 71.36\*elder2# + 919\*elder3#; while elder(n)# is number of elderly in group (n).

#### Conclusions

The study will benefit health and non-health sectors collaboration by providing a tangible and clearer investment recommendation, assuring that basic preferable activities listed in the cost analysis



frame will be provided the communities. LAOs should at least provide those preferable projects whilst others could be optional.

#### Comments

Due to scarce costing information available in Thailand, authors suggest further studies on LAOs costing for accurate and precise future costing. The costing reference based on the 2000's index. Therefore, use of this equation may require adjustment. The cost analysis did not include capital cost and indirect cost allocation.

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## Training Caregivers for the Elderly: Unit Cost Analysis for Future Investment

#### **UTHAISAENGPHAISAN Saengnapha**

#### Introduction

As number of aging population is increasing, government agencies have implemented various strategies. Interventions usually include an establishment of elderly activity center and elderly clubs, home visits, home healthcare. More bed-bound elderly have been found abandoned and have become a tragic burden for both families and communities. Caregiver training is an essential public health intervention to provide better quality of life for everyone. Therefore, cost analysis of the training is crucial for further development and implementation of such program.

#### Purpose/Methods

The cost study was conducted at Regional Health Promotion Center 5, Department of Health. Standard costing method was applied. Total cost was determined as the cost for the whole project. Products were sessions of training and caregivers who were trained. Units of cost analysis were determined as one training session and one caregiver. Capital cost and indirect cost (cost allocation) were not included in the study.

#### Results

From the public health perspective, the total cost of caregiver training was approximately 305,000 Baht (9,243 USD; 33Baht = 1 USD). Cost per one session was 76,250 Baht (2,311 USD). Cost per one caregiver was 2,202 Baht (66.7 USD). The more attendants there are, the more saving of training cost it would be. However, the quality control limits the size of practice class to 40 trainees.

#### **Conclusions**

The finding can be used for further economic evaluation to explore cost-effectiveness and to inform policy decision makers.

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The Social Support from the Medication Selling Program of Cable TV among Old Population - the Countryside of Southern Taiwan Experiences

#### LIAO Hui-Yen, LU Hung-Yi, LIN Ming-Nan

#### Introduction

Mass Communication is a strategy to spread the health information and medication resources. Even for the radio or TV programs, they're favor to adopt it to sell illegal medicines to many audiences especially for older population. For the estimation, there are more than 300 thousand people ever bought the unauthorized medicine or cosmetics from illegal radio or TV program in Taiwan. The selling illegal medicine by communication strategy is becoming an important issues in Taiwan, and we need to understand the medication-taking behavior of the elderly and the reason for them to seek these unauthorized medical services.

#### Purpose/Methods

This study, conducted in 2013, attempts to explore the communication marketing strategies of medicine-selling programs on cable TV by ways of field observation and one-on-one interview in Chiayi County. The researcher stepped in the field and also interviewed the manager, host and audience of the medicine-selling programs. Questions for hosts contain: what qualifications do you think to become a good host of medicine sales? And what's the element for attracting the audiences' attention? For audiences, why do you like to watch the medicine selling program on TV? And what's the feature of program or host you interesting in? Why do you trust the TV program or host?

#### Results

The result of this study shows that the host of the medicine-selling understands what audience needs. Social supports become an important issue. The host attempts to keep a close tie with audience by way of various call-in activities such as fortune-telling, travelling and singing. The host especially concerns audience and provides warmth in order to interact well with audience. Under such circumstances, audience becomes fans of the host and buys the products and medicine sold by the host.

#### Conclusions

Older audiences have social support, well interaction and confidence with the host of cable TV. The implication of this study to physicians and nurses shows that social supports are vital and they can be adopted by physicians and nurses in order to meet patients' needs during the medical encounter. Perhaps we can learn the experiences and marketing strategies from cable TV, in order to improve health education and quality of communication between healthcare staffs and patients.

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# The role of nutrition support in health promoting hospitals: targeting the elderly

#### **WONG Toh Yoon, MURATA Hirohiko**

#### Introduction

In an aging society such as Japan, nutrition support is playing an increasing role in healthcare institutions. Integrated care must contain nutritional support as the elderly are frequently prone to malnutrition. According to the Japanese Society of Parenteral and Enteral Nutrition, hospitals with nutrition support teams have surged from only 12 hospitals in 2001 to more than 1500 hospitals in 2010.

#### Purpose/Methods

A nutrition support team was established in our hospital in 2004 with the goal of promoting nutritional support among warded patients. The function of nutrition support in our institution will be described, focussing on its effect on promoting health in elderly patients.

#### Results

Weekly rounds are conducted with more than 80% of patients screened for support above the age of 75. Nutritional intervention has helped decreased the average length of stay in our hospital from 21 days in 2003 to 13 days in 2011. Unnecessary central venous access has deceased and increased oral intake after nutritional support can be observed in many elderly patients, enabling them to stay healthy after discharge. Education seminars on nutrition are also held bimonthly.

#### Conclusions

Nutrition support will continue to play an integral role in healthcare institutions, especially when it comes to caring for an aging population. There is a strong need to develop and train healthcare professionals in this field in order to maintain the quality of support.

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# Multifactorial interventions to reduce falls in older people:

## vocational training, informative campaign, exercise program.

### TURCI Marina, FABBO Andrea, DE LUCA Maria Luisa, MARCHESI Cristina

#### Introduction

Falls are frequent in elderly people and heavily affect their quality of life. Guidelines recommend multifactorial, targeted fall prevention.

#### Purpose/Methods

The aim of the plan was to built a community program to prevent falls in a community-dwelling people. We evaluate the effectiveness of this program through involved-people questionnaire and number of falls.GP, social services , volunteering, gym teachers plan appropriate interventions to decrease falls incidence. The approach consisted of three directions: 1) informative campaign to the community; 2) vocational training; 3) promotion of physical activity in the older community dwelling people at high risk of recurrent falls.

#### Results

We asked to fill in questionnaires to value the results of our campaign. The first one was for the old people living in our region. 75% of the old people that answered the questions said that they knew about this campaign. But 81% of them said that they did not change their relation both with their general practitioner and health. 47% of them said that they changed something in their habits and environmentThe second one was a questionnaire for old people's relatives. Only 53% of the relatives that answered the questions said that they knew about the campaign. 61% of them said that they changed their relatives' care habits while only 31% of them said that they noticed some changes in their relatives' habits towards this problem The third one was for professionals who work with elderly people. 84% of nurses, basic assistants and physiotherapists who answered the questionnaire attended the course. 81% of the people in this group have changed something in their daily routine. The most important modifications are about environment suggestions, physical activity improvement, and falls assessment. Moreover, 47% have noticed some modifications in their patients' habits and 41% said they noticed changes in their patients' relatives' habits.

#### Conclusions

The last one was for general practitioners. 74% of the general practitioners in this region attended the course. 95% said that they changed something in their daily practise. The most important modifications are about environment suggestions, asking their patients if they had fallen and improving physical activity. Moreover, 31% have noticed some modifications in their patients' habits and 16% said they noticed changes in their patients' relatives' habits.

#### Comments

Cochrane Database Syst Rev 2009 Apr 15; (2) interventions for preventing falls in elderly people. Cochrane Database Syst Rev 2009 Apr 15; (2) interventions for preventing falls in older people living in the community.



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# Session M2.3: Hospitals and health services as health promoting workplaces - II

Salutogenesis: Sense of coherence of Primary Care Nurses of Girona

### MALAGÓN-AGUILERA Mª Carmen, JUVINYÀ-CANAL Dolors, BONMATÍ-TOMÀS Anna

#### Introduction

The Salutogenic Theory is based on the construct of Sense of Coherence (SOC) developed by Antonovsky. The SOC is "a global orientation that expresses the extent to which one person has a pervasive, enduring though dynamic, feeling of confidence that one's internal and external environments are predictable and that there is a high probability that things will work out as well as can reasonably be expected". The stronger a person's SOC the greater their ability to incorporate healthy behaviors to benefits health.

#### Purpose/Methods

The aim of our study is to describe the SOC of Primary Care Nurses of Girona (Spain). Descriptive study of Primary Care Nurses of Girona (n=83) by self- questionnaire (SOC-13). It's a 13-item questionnaire fitted to a seven-point Likert scale. Possible scores range from 13 to 91.The higher the score, the stronger SOC. Data was analyzed using SPSS 15.0 for Windows.

#### Results

Response rate 66,2% (55, 51 women and 4 men from 25 to 65). Mean age is 48.46 (SD 9.8). The mean SOC score is 67.49 (SD 8.66). The mean score of the Comprehensibility is 27.05 (SD 3.95), Manageability 21.8 (SD 3.81) and Meaningfulness 18.63 (SD 4.34). Manageability and Comprehensibility are correlated statistically significant (Pearson coefficient = 0.008, p = 0356). No significant differences with age (eta squared= 0.55). The group 55 to 65 have a mean score weaker than the rest.

#### **Conclusions**

According to the Feldt's classification of SOC scale, our sample is in group 3 SOC (57-73 points). This score is considered by Starr and Stephens a high value of SOC, however other authors as Olssón consider it a low value. The SOC of Primary Care Nurses of Girona is higher than other groups of nurses, other specialties or other countries. Knowing the SOC of these nurses research to

identify salutogenic process and factors involved in order to improve quality was initated.

#### Comments

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"Build it and they will come" -Bringing Mindfulness to Beaumont-a staff well being improvement programme

#### LYNCH Barbara, COUNIHAN Sian

#### Introduction

The Staff Counselling Service (SCS) promotes staff well being, health and motivation by providing counselling and psychoeducational services. The recent increase in both personal and occupational stressors with increased demand for appointments and work related stress presentations prompted the introduction of this intervention.

#### Purpose/Methods

As greater levels of presenteeism and or absenteeism have been shown to directly impact on patient care an intervention was introduced to improve and retain the well being of all staff. This intervention was conceived as a forum where staff could learn strategies for self care and stress management. A Mindfulness Based Stress Reduction (MBSR) / was chosen as Mindfulness is currently being incorporated into the fields of patient safety, satisfaction and quality and would therefore support staff in their personal and occupational stressors. The MBSR course is an 8 week group programme for individuals designed to enable them to personally develop and manage physical, psychological and stress related difficulties. An open invitation to self refer into MBSR was provided to all hospital staff via a hospital newsletter and on the hospital intranet. The course was open to all staff of the organisation.

#### Results

Fifty employees, mean age 47 years (range 25-75 years) consisting of administrative staff (49%), nursing (21%), allied health professionals (23%) and scientists (7%) completed the MBSR. The Five Facet Mindful Questionnaire was completed before and after the course and at 12 months. Results showed increases in Mindfulness from pre to post MBSR (F(2,76) = 51.46 , p < .001), these were maintained over the following 12 months. Participants reported that they had developed both formal and informal practice.

#### Conclusions

The outcome of this intervention, delivered on site to employees, is in line with MBSR outcomes internationally. The integration of MBSR into the SCS repertoire further assists in mitigating the negative consequences of compassion fatigue and burnout. /

#### Comments

There is an ongoing and consistent demand for this intervention with a seventh course planned for 2014, however the absence of medical staff is striking. Staff are motivated to commit to the demands of the course and recognise personal benefits of developing a mindful practice.

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Top down - bottom up strategy to promote resiliency in workplace: improvement plans in Health Services n°2 "Isontina"

### GIACOMINI Luisa, AGUZZOLI Cristina, BERTOLI Marco, MACERA Loredana, RIVA Daniele

#### Introduction

In the workplace, to get health and well-being we have to focus primarily on: individual physical activity programs, nutrition, smoking cessation programs, prevention of alcoholism and weight reduction. Changes in the organization and in the work environment have the potential to promote the mental health of workers. The major health and economic benefits are achieved with combined programs that include interventions at the individual and corporate. (www.iga-info.de; Sockoll et al.)

#### Purpose/Methods

In our Health Services we have applied a multi-level strategy to monitor investments and assets for resilience: What does the Management? What do the Departments? What do the Employees? For the investigation we used a check list on Resilience, a way to simplify the analysis of protective factors that generate organizational well being. Key points to check include: stress management, life styles of the employees, decision making, communication style, personality.

#### Results

For management level, the HPH Committee has realized a brochure that outlines the whole lifestyles strategy to make easier the employees participation to the programs. Employees can find in the brochure the times, ways and places for adhesion to paths at low cost or free. At the services level, has been promoted the self-evaluation with the HPH standards to promote the organizational culture. We are collecting the improvement

plans in a document similar to the "Guide to Promoting Healthy Workplaces in Health Care Institutions"

#### Conclusions

The design of improvement plans has been promoted by management. The department manager, through the HPH standards, shared the area to be tackled. A group of employees received the commitment to built the project. In two workshops some employees explained improvement plans to their colleagues. This way of working has acted as a boost for creativity. Improvement plans were on time management, the theme of death, the definition of who does what, the restructuration of the environment.

#### Comments

The Innovative Organization is an organization that has the ability to adapt to changes that occur in the context where them appears. These adjustments require a climate that encourages creative behavior of its members (Ekvall 1999). Without creativity there can be no innovation, but, if you don't apply creativity to reality you can't determine innovation. In our experience the improvement plans on organizational wellbeing represent a good way to link creativity with innovation in daily practice.

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# Session M2.4: Improving the public health impact of health services

Learning of national diseases and their prevention among teenagers

## MAKKONEN Anne, RANTA Liisa, TUOHIMAA Hanna

#### Introduction

This abstract describes the project of learning of national diseases and first aid for ninth graders (15 to 16 year old pupils) in four secondary schools in southern Finland through participative methods. The project is based on an earlier survey conducted in the region to find out the level of awareness and heath literacy among 15 years olds (n = 641). 41 percent of the respondents thought that increased awareness of health related knowledge would influence their health behaviour positively.

#### Purpose/Methods

The purpose was to increase the teenagers' health literacy and to establish an alternative approach to teaching national diseases and first aid. A group of adult nursing students planned and implemented four alternative activating learning sessions. For example, one group drew the human figure on the floor



discussing with the pupils what smoking, drinking alcohol, eating unhealthy food or not exercising meant to the head, heart, limbs and guts. The pupils also had a crossword puzzle to fill in.

#### Results

The pupils answered a questionnaire (n = 71) after the sessions. The results showed that pupils benefited from the sessions; gaining a deeper understanding of national diseases (89 percent) and first-aid skills (92 percent). 33 percent were considering making changes to their lifestyle. After the project every nursing student group was met by their teacher and their own learning was discussed. Also the students felt they had deepened their understanding of national diseases and the significance of early intervention.

#### **Conclusions**

This project had an influence on the health literacy skills of the participating teenagers. The sessions got 68 percent of the pupils thinking about their health. Furthermore, the nursing students gained an important perspective on the teenagers' thinking and attitudes. They also found different ways to demonstrate the subject matter; how to achieve a deeper understanding of the mechanisms and prevention of national diseases. This is an important skill when working as a nurse in the future.

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The theater for health promotion: a strategy for social inclusion of the community tested by the Local Health Unit of Modena (Italy).

### DAGHIO Maria Monica, VANOLI Marco, CIARDULLO Anna Vittoria, FATTORI Giuseppe

#### Introduction

The theater has long been used to promote activities about complex topics of health (aids, obesity, alcohol, smoking.) The strength of the theater for healthy lifestyles focuses on: being an instrument of knowledge, working with others (co-creation); awareness of verbal and non-verbal language to facilitate the inclusion of the less literate; helping the actors and the audience to reflect on their attitudes / behaviors; stimulating social behavioral change towards a vision of health promotion.

#### Purpose/Methods

In the Local Health Unit of Modena, a multidisciplinary group of health professionals (hospital doctors, general practitioners, nurses, administrative operators, volunteers) is testing the use of theater to actively involve the local community in health promotion. The troupe "Anna & the Hospitalist", create and

perform sketches based on real life using ironic and simple language which make people from every social group able to comprehend the importance of adopting healthy lifestyles.

#### Results

The troupe was formed in 2009 and about 30 people, physicians, nurses, administrative operators, volunteers, are involved. The participatory building of the scripts encourages the integration among the different professions. Verbal and non-verbal language are the main focus in the experience of health promotion with the theater so that each performance can be understood by everyone. 300 people in each performance, 1000 yearly. The topics are: aids, alcohol, smoking, nutrition, physical activity and access to health services.

#### Conclusions

The participatory building of each performance, based on short comedy sketches, songs, poems for promoting health, gives each one of the health professionals the opportunity to become actively involved, understand the the points of view of others and to learn which words and gestures can reach and involve everyone, independent from the age, social and cultural group. In this vision, the theater is an effective instrument of community building.

#### Comments

Please consider this abstract for poster presentation if it cannot be accepted for oral presentation.

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Fill up the missing chapter of health promoting hospital, to ensure those "healthy food" that we promote are safe to eat and not poison to health.

### NEOH Choo-Aun, LEE Kuan-Yu, HU Ying-Chiang, YU Kwong Leong, TOK Teck-Siang

#### Introduction

All HPH advise public limiting intake of saturated and trans fats to lower risk of heart disease. But recently BBC news reported that not only banned colouring agent, copper chlorophyllin cooking oil, toxic starch, dangerous levels of industrial plasticisers, dangerous ingredients like Rongalite, borax etc food additives were found in Taiwan's black-heart food and cuisine industries. Some consumers believe that making their own cooking oil from pork may be the safest choice. All years of health promotion activities in vain.

#### Purpose/Methods

Food turn unsafe because of lots of additives. To much benefit in food industry, that most dare not challenge. All food additives

request pre-clinical toxicological tests: chemical manufacture and control, CMC, pharmacokinetic, Safety Pharmacology, Toxicology test before they can be use in food production. Our purpose is to enlight the important of food safety to ensure that those healthy foods that we promote to the public are safe to eat and not endanger their health.

#### Results

The spectrum of HPH should extend from correct healthy food eating to safety food production. Even include promote crops be grown in safe soil, not to use synthetic pesticides, petroleum-based fertilizers etc beside promoting exercise and eat healthy food. We should teach public to avoid food additives, artificial sweeteners and artificial colors. Dietician should provide food safety and toxic knowledge beside nutrition. Hospital strong point, lab should play more roles in food safety and not only for acute & chronic disease.

#### Conclusions

HPH only improve public health when public are accessible to safe, non toxic food. HPH should work with FAO, WHO, JECFA, etc to make food safer by requiring industry to put preventive controls such as Hazard Analysis Critical Control Points (HACCP) under FDA jurisdiction. Solving food safety issue, let public dare to eat "healthy food". Set up a food safety interest group to promote food safety as a compulsary just like smoke quiting as a compulsary project for HPH members.

#### Comments

Taiwan not the only country with unsafe food. Most area around world no matter how many labels you read, you still be consuming a lot of additives and chemicals ,classify as "appetising". Taiwan got advance medical and lab technology to enable us to set up the first proposal to solve the world health promotion problem before other country dare to expose or to face this food safety scandal issue. We urge set up food safety interest group in WHO,HPH network.

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# Session M2.5: Making hospitals and health services more health-literate - II

Promoting Health Literacy of Limited English Proficiency (LEP) Patients and Families through Interpretation Services

SAPPLETON Karen, KARMALI Karima

#### Introduction

A key dimension of health literacy is the capacity of healthcare providers, patients and families to communicate respectfully with each other. To this end, the Interpreter Services Department at SickKids provides face-to-face and over the phone interpretation services for over 90 languages through permanent, part time and casual staff as well as contracted interpreters through a community agency. Resources promoting self-initiated requests by patients and families and opportunities for enhancing knowledge of working effectively with interpreters for staff were created

#### Purpose/Methods

To support and facilitate the communication between healthcare providers and LEP patients, a poster written in our top 11 languages was created to encourage patients and families to seek interpretation services. A book mark using the same translated sentences will be provided to families at the Family Centre and all access points of the hospital. A Working Effectively with Interpreters brochure as well as face —to-face in-services and lunch and learns were designed for staff to enhance their knowledge.

#### Results

To determine the impact of the various tools and resources as interventions for enhancing access to Interpreter Services, the overall number of interpreter services requests will be analyzed to see an increase in such requests. Furthermore, to determine the impact of the individual interventions, that is, those geared towards improving self-initiated requests by patients and families or those increasing the knowledge of staff, the number of requests will be analyzed based on who initiated the requests.

#### Conclusions

Health literacy for LEP patients and families greatly relies on the tools and services made available to them by the service providers. As a leading pediatric hospital in Canada, SickKids is committed to child and family-centred care that is grounded in equity and quality. Increasing the knowledge of patients and families to access Interpreter Services and through greater understanding of the need for interpreters by staff, the organization's goals of enhancing health literacy for LEP families may be better achieved.

#### Comments

We are encouraging patient and family centred care and health literacy of patients and families by respecting their needs, collaborating with them and partnering with them to empower them to seek interpreter services support. Ultimately we hope to enhance the health literacy of all LEP patients and families as we provide more and more capacity to service their requests.

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# Improving the navigation at a hospital in Barcelona, thanks to audience experience

### FERNANDEZ-AGUILERA Monica, MONTEIS Jaume, JUNCOSA Sandra, BORRELL Nuria, GOMEZ-VARELA Maite

#### Introduction

Sant Joan Despí Moisès Broggi Hospital is a brand new center (March 2010), based in Barcelona, Spain. It was the first county hospital for a region of 300.000 inhabitants. The signs for the navigation at the center were designed under esthetic and not useful criteria. Once the activity at the hospital was started, the Hospital Management realized that some changes needed to be made.

#### Purpose/Methods

The Hospital decided to take into account the users opinion and experience: from patients (external audience) and workers (internal audience). The Hospital Management and the Patient's Attention Service gathered suggestions, complaints and proposals to improve the navigation. This information was complemented by the results from using a tool (Health Literacy Environment Review), designed by Prof. Rima Rudd and Jennie Andersen (Harvard School of Public Health) and, adapted by our local HPH network group.

#### Results

In 2010, 72 proposals were made to improve signaling and navigation system in our healthcare facility (8.27% of total proposals); and, there also were 8 complaints (1.03% of total complaints). A Navigation Commission was created to improve the experience. During 2011, 2012 and 2013, many actions were done to help the navigation. By the end of 2011 the Hospital reduced significantly the number of proposals (5.12%) and complaints (0.11%). In 2013, there were 1.98% proposals and no complaints.

#### Conclusions

The number of proposals was reduced from 8.27% to 1.98% and complaints from 1.03% to 0%, in only 3 years. The audience experiences and opinions have been very useful to improve patients and workers' autonomy and help them to navigate the healthcare system. A Navigation Commission was created and developed protocols to standardize signals, a guide of navigation and an action plan.

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# A shared path toward shared decision making

### RAGNI Pietro, BARUZZO Sara, NINI Antonia, FERRETTI Enrica, GAZZOTTI Federica, STELLUTO Valentina, POLETTI Nicola, CHIARENZA Antonio, RICCÒ Daniela

#### Introduction

Traditional informed consent (CI) is an outdated model to help patients making self-sufficient decisions on the choice of care. Hence, in Reggio Emilia's Health organization we adopted the Shared Decision Making (SDM) approach, which strongly encourages a decision making process that includes patients—with the agreement of citizens' representatives. SDM approach is based upon a good communication between health-care provider and patient, according to Health Literacy (HL) principles and practices. The patient must be able to easily and completely understand the given information.

#### Purpose/Methods

The project's main goal is to fully empower a patient who has to decide on a diagnostic treatment or a therapy. During 2013 we involved citizens' representatives and various physicians and nurses in a forethought on ethical and philosophical principles of SDM and HL approach. We also considered implications for legal and professional responsibility and accountability. Thereby, we purposed to update our specific CI-SDM policy document.

#### Results

Our policy document on CI–SDM was updated, using verified HL tools, according both to the latest bioethics addresses and to citizens and health professionals suggestions. First, we used simple language to write the new CI-SDM modules; then, all modules have been shared with citizens' representatives before being adopted in our hospitals. Furthermore, information tailored to each patient's needs has been expanded.

#### Conclusions

We opine SDM approach will help develop the health-care provider — patient relationship, at the same time lowering disputes' and legal problems' likelihood. Moreover, we aim to improve patients' awareness on their disease, and to help them making mindful decisions on their own healthcare treatment - enhancing adherence. Citizens' representatives strongly supported the project, participating both in its initial phase and in monitoring project's development (still ongoing).

#### Comments

If patients agree, families and health-care provider should been given the opportunity to participate in decisions on treatment and care. Improving patient/families/carers knowledge and information may require structural changes to health services and their management. In the long run, the project will focus on adapting organisational and structural elements that prevent a good health-care provider – patient relationship and the creation of an SDM.

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Health Promoting Information Center in the hospital setting as a health promotion service to empower people with more health-related knowledge

### LEE Hae Won, CHOI Jung-Seok, LEE Sang Hyung, YOON Jong Hyun, PARK Minsu, LEE Hee Young, HA Jin Kyoung, YOON Kang Sup

#### Introduction

In a large general hospital, it is a challenge to take time to give informations to every patient. To enable to have more self-control and to improve health, Boramae Medical Center targeted delivery of health related informations to patients, as well as employees and visitors. The Boramae Medical Center HPH team initiated a project proposal to create an information center in the hospital lobby which opened to the public in 30th of August, 2013, titled as the Health Promoting Information Center.

#### Purpose/Methods

Before the opening of the center, to determine the informational needs of visitors on the center, 124 people including patients and their family members, hospital visitors, medical staffs and the rest of hospital employees were surveyed. Three well-known Cancer Education and Information Centers in cancer hospitals in South Korea were also benchmarked. The survey and the benchmarking reports were reviewed to formulate the concept and develop the contents of the center. After the opening of the center, we surveyed to assess the use patterns and the level of satisfaction of the information by the center visitors for the last three months.

#### Results

The developed concept or framework for the center based on the survey and discussion of TF team members is to provide information for disease management, to offer counseling and campaign for the healthy-related life style, to provide information for the hospital and community service and programs, or to compliment medical staffs by surveying the further need of patients from medical treatment. The contents we prepared for the opening in August 2013 were health-related books, leaflets and booklets for disease management and life style, and animated health information video clips. Initially, some questioned the vagueness of the center's role. Promotional hospital broadcasting, placards and banners resulted in visitors' enhanced interests in the center as a place to gather heath information. The survey data upon the use of center were analyzed into hospital visitors' needs and hospital employees' needs. Among both groups, there were general consensus of the

needs for information related to healthy-related life style to prevent disease, and individual counseling for disease management and healthy-related life style.

#### Conclusions

The Health Promoting Informational Center has been operational for only three months. We have been carefully monitoring the number of visitors, the types of information they are requesting, and the inconvenient details, etc. However, preliminary survey indicates that visitors using the center are generally satisfied and offer opinions regarding the health informational needs that they have. More detailed evaluation will be followed. We are optimistic that through the Health Promoting Informational Center we could further improve efficient delivery of health-related information and ultimately, improve patients' experience, satisfaction and health promotion.

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# Session M2.6: Making hospitals and health services more health promoting and environment-friendly settings

Laughter and joy – a basic need for children in hospitals

#### **CULEN Monica**

#### Introduction

As defined by the WHO, health is not simply the absence of disease but a complete state of physical, mental and social wellbeing. RED NOSES work focuses both the physical and psychological wellbeing of children, seeking to ease the stress caused by painful treatments and long stays at the hospital. Using a positive and integrated approach to children healthcare, hospital clowning also provides a muc needed support and acts as a stress reliever for the caregiver.

#### Purpose/Methods

Hospital clowning cannot alter the reality of the children, but it can lighten the experience and enrich caregiving relationships. Children's response to clowndoctors is generally very positive. During the interaction the children are fully included in the process, giving them self-confidence and courage, an element fundamental to their physical and psychosocial wellbeing. In fact, encouraging and facilitating children's active participation in the programmes and being sensitive to their condition is central to reduce their vulnerability and increase their reaction.

#### Results



Our experience has proved that clowndoctors' work helps children to develop skills and confidence which can empower them to challenge their present reality. Simultaneously, it provides a sense of "normalcy" in abnormal situations allowing children to alleviate their fears and stress through humorous and self-expressing activities. By making the hospital environment more humane and "less scary" for the little patients, RED NOSES could witness an increase in children response to treatment and hopes for improvement.

#### Conclusions

Clown work has proved incredibly beneficial for children. Its physically benefits range from strengthening the immune system and increasing pain tolerance to support breathing and heart functions. Psychologically, hospital clowning has proven essential in providing children with coping strategies and in contributing to raise their self-esteem, confidence and improve their social abilities. Additionally, this patient-oriented care has also a very positive impact on the parents and the way they deal with the health condition of their children.

#### Comments

Please note that this work does not correspond to scientific research, but to the daily work of our organization.

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## iNaturum, health promoting environment

#### **NOORLIND BRAGE Helle**

#### Introduction

Being a patient in a strange and unknown environment is sometimes very frightening and stressful. Maybe you are waiting for test results or laying very sick in a hospital bed. In these situations it's very important that health care can provide a health promoting environment. Research has shown that only a few minutes of exposure to pictures of nature can promote health and lower levels of stress. Lowered blood pressure, less medication, enhanced wellbeing and faster recovery has been shown.

#### Purpose/Methods

At a heart surgery intensive ward two patients are laying beside each other, sometimes separated by a curtain. These curtains are plain grey and gives no positive distraction at all. We have constructed curtains with photos of nature and will do observations at base line with the grey curtains and then at intervention with nature curtains. Evaluation will be done by questionnaires with both fixed and opened questions. Questions will be provided for patients, relatives and staff.

#### Results

This is a pilot study that will be completed in February 2014. Results will be compared at base -line and intervention. Each period lasts one month and we anticipate that 50-70 persons will be exposed. We are using Numeric Rating Scale, NRS 1-10, and will evaluate the impression of the whole environment as well as the curtains them selves. We are also measuring the visual impressions of the curtains among patients, relatives and staff.

#### Conclusions

This pilot project has been financed by the county council. If the intervention shows positive results, this might be a cheap and simple method, although still based on research, to enhance health promoting environments at larger scale, in health care. Using curtains between patients is a very common way for separation and there are hundreds of them at a hospital. If this method enhances patient welfare, gives quicker recovery and less medication it might also cut costs in health care.

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# Effectiveness of Therapeutic Horticulture Activities on Day Care Dementia Elderly Person

## SHEN Shu-Hua, YEN Mioafen, LU Huei-Lan, CHEN Shu-Fen

#### Introduction

People with dementia have serious problems brain functions, such as cognitive dysfunction, psychiatric symptoms and behavioral problems. Gardening is an important leisure activity can promote physical and mental development; it can reduce stress, and promote physical and mental value for patient with dementia.

#### Purpose/Methods

Subjects were patient with dementia who received treatment in daycare service. This 8 weeks horticultural therapy course provided 60 minutes activities a week, including plants recognized, planting, tilling the soil, watering, etc., data collection and analysis by in-depth interviews and questionnaires.

#### Results

A total of 30 elderly participated, average age was 78 years old. The result of study found that active attitude to participate in horticultural therapy improved significantly by 36%, and life satisfaction also significantly improved by 30%, the mood index also increased by 38.2%. Patient expressed that the Horticultural Therapy activities could bring spontaneous participation, strengthens the self-identity, life expectations and surprises and increased interaction with peers.

#### Conclusions

Daily practice Horticultural Therapy activities to improve rehabilitation for aging and dementia, improving interpersonal relationships, cultivate mutual cooperation, and strengthen group cohesion. This Horticultural Therapy is indeed widely available on the elderly with dementia.

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# Carpooling services helps reduce CO2 emission, reducing the rate of global warming

## WANG Shu-Hui, YANG Po-Hsun, CHUANG Shu-Ting, CHIEN Sou-Hsin

#### Introduction

The World Health Organization recommends reducing greenhouse gas emission to promote populations' health. According to statistics from the U.S. Environmental Protection Agency, 13% of greenhouse gas emission comes from vehicle exhaustion. Hospital carpooling services not only increase access for rural populations to medical care, greenhouse gas emission can also be reduced.

#### Purpose/Methods

The hospital arranged carpooling buses for villages that were more than 30 kilometers (km) away from the facility. Buses were equipped with a customized Android app (Patent no. M46339) that allowed patients to book appointments on their ride. Patients could immediately head towards the waiting area once they arrived at the hospital.

#### Results

Since December 2010, the hospital carpooling service provided 240, 624 person-times. Ninety percent of the passengers were between ages 40-65 years old, 36% had Oriental Medicine appointments, 22% had Neurology appointments, and 16% had Gastroenterology appointments. The number of carpooling routes increased from 9 to 12 in year 2013 with about 120 bus stops. The number of person-year served increased 1.7 fold in year 2012. This was equivalent to 1,058 metric tons of CO2 emission reduction or 1.877,516 Kilowatt-Hour.

#### Conclusions

This case showed that carpooling services is an effective way to reduce CO2 emission, reducing the rate of global warming. In addition, carpooling services with mobile Android APP can increase rural population's access to medical care.

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# Session M2.7: Supporting smoking cessation

Smoking cessation pathway for patients and healthcare employees in Reggio Emilia

# MAZZINI Elisa, ROMPIANESI Maria Chiara, RONDINI Ermanno, BOSI Sandra, STORANI Simone

#### Introduction

The smoking habit is one of the most important risk factors for cancer, cardiovascular, cerebrovascular and many other diseases. Smoking is still a widespread habit. In order to prevent neoplastic diseases, it is our interest to work on lifestyles, as our Hospital is also Institute of Research in Cancer. To pursue this goal, in 2013 we started a structured program of quit smoking. This program was aimed at Santa Maria Nuova health staff and patients.

#### Purpose/Methods

A quit smoking pathway was structured: according to it, smoking patients and employees went to the no-smoking center (CAF) connected to Association against tumors. Patients and employees, who were both smoke addicted and well-motivated to quit the smoking habit, were invited to attend the clinic, where they started a process of quit smoking (cognitive behavioral with farmacological support). In order to select patients, the following tools were employed: Fagerstrom (addiction) and "Motivazionale breve" (motivational).

#### Results

From July to December 2013, 15 smokers, respectively 4 employees (that is 0.7% of hospital smoking employees) and 11 patients were sent to the No-smoking center. Out of them, 3 employees and 6 patients followed the five-week long program proposed by the No-smoking center. In December 2013, 2 employees and 5 patients completed the program. At the end of the process, the success rate for quitting smoking was 77% (66% of operators and 83% of patients).

#### Conclusions

The main process and outcome indicators will be supervised, in order to offer this proposal of healthy style and smoke-free working environment to all well-motivated people. The high number of smokers following CAF program and the short time elapsed from the start of the program cannot give enough data for a resolving conclusion. One year after the end of the treatment, a follow-up will be made, in order to evaluate the rate of relapse and effectiveness.

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Italian national program of midwives' counselling "Smoke free moms"

# SBROGIO' Luca, BELTRAME Laura, MICHIELETTO Federica, PADOVAN Mara, RUSSO Francesca, SALVAGNO Lisa, VILLANOVA Maria Teresa

#### Introduction

The Ministry of Health, the Italian League against Cancer and the National Federation of the College of Midwives started the national program "Smoke-free moms" (SFM). The aim is favouring the intervention of midwives to support pregnant women to quit smoking and to follow them and their partners in the puerperal period in order to help those who quit to maintain abstinence.

#### Purpose/Methods

The programme provides: tailored training to midwives in antitobacco counselling techniques, elaboration and distribution of updated educational material, dedicated website, promotion of smoke-free parents connecting hospital and territory resources, in synergy with Smoking Cessation Services, monitoring and effectiveness evaluation.

#### Results

in Italy, 4 national anti-tobacco counselling training courses have been organized for 100 trainers, locally about 2200 midwives (on a total of 13.000) are formed in anti-tobacco counselling techniques. In Veneto Region 52,9% of midwives are formed; all Local Health Authorities (LHA) of Veneto Region take part to "Smoke free moms" and to regional midwives' anti-tobacco counselling training; in most of LHA more than 80% of smoking pregnant women receive anti-tobacco counselling, mainly during childbirth preparation courses.

#### Conclusions

The programme has pointed out its effectiveness: a 2010-2012 survey in Veneto Region, puts in evidence an increase of the percentage of no smoking women during pregnancy (95,7% in Veneto Region), a decreasing percentage of women who relapse after pregnancy, from 11,5% to 4,3% at 3rd child vaccination (13 months). Midwives' training, monitoring, revision of educational material and website, connection with Smoking Cessation Services are going on in order to increase smoke-free families.

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# A Smoking Cessation Program for Male Drug Users in a Drug Abuse Treatment Center.

#### SU Yumei, LIN Yihui

#### Introduction

The prevalence of smoking among drug users is 91.6% in Taiwan. Cigarette smoking is a leading cause of preventable death. Hundreds of epidemiological researches have been found strong associations between smoking and a variety of diseases. A great number of lives could be saved if smoking could be prevented.

#### Purpose/Methods

The purpose of this study is to evaluate a change of smoking behaviour, using both health education, smoking cessation counseling service conducted among the male drug users in a drug abuse treatment center. Participants received a smoking cessation intervention with six-month follow-up to determine abstinence.

#### Results

The results showed that 256 subjects participated in the smoking cessation programs and the amount of cigarette smoking per day was significantly different from that recorded before the programs (paired t=8.318, p<.000). Primary end-points at 3 and 6 months were continuous abstinence, point prevalence abstinence and reporting a 71.9% reduction in smoking.

#### Conclusions

Based on these preliminary results, we conclude that this health education intervention could improve the success of smoking cessation among male drug users.

#### Comments

As one of the most marginalized and socially disadvantaged populations, drug users represent an important population to target for smoking cessation programs and interventions. This paper highlights a number of initiatives undertaken to address this problem and suggests directions for the future.

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The Mindfulness-Based Stress Reduction program for adolescent smoking cessation increased abstinence rate

CHENG Chih Ling, YANG Ya Wen, CHOU Chun-Chen, CHANG Pei-Li, CHANG Chieh

### Wen, HUNG Ling-yu, TSOU Jhi-Chyun, MA Hon-Kwong

#### Introduction

The smoking rate of Taiwan junior high school students has increased from 7.8% in 2008 to 8% in 2010, according to the Health Promotion Administration survey. More than 50% of the students who smoke want to quit smoking.Our hospital introduced the Mindfulness-Based Stress Reduction (MBSR) class to students who intended to quit smoking.Students will learn how to deal with stress that was a trigger for tobacco use through the mindfulness training and increase the abstinence rate.

#### Purpose/Methods

Mindfulness means paying attention in the present moment, non-judgmentally, without commentary or decision-making. Students were enrolled in a nine-week MBSR group where psychologists, social workers and tobacco control educators would give instructions in a two-hour class weekly. Students were instructed to do five things: practice mindfulness, body self-scanning, practice yoga, emotion perception and management, and behavior planning and life integration. Questionnaires were given before and after MBSR program to evaluate their perceived stress, depressive emotion and nicotine addiction level.

#### Results

Total of 10 student smokers were enrolled in this MBSR smoking cessation program and the average attendance rate is 70%. The results of questionnaires showed participants had more depressive emotion and perceived stress before program. After MBSR program,improvements were found at depressive emotion (9.38 vs 4.0, p=0.067), perceived stress (11.25 vs 9.13, p=0.053) and nicotine addiction level (4.13 vs3.13, p=0.506), but no significance was found. The 3-month abstinence rate reached to 70%.

#### Conclusions

Perceived stress and depressive mood are leading causes for student smokers than nicotine addiction. In the MBSR group, they are totally accepted without the pressure of authority. What mindfulness training tries to teach them is that interpersonal interaction can work well without repression. There will be more understanding, tolerance, communication and interaction if they can genuinely trust, accept, be patient, and stop judging others. The MSBR program is effective to help them quit smoking easily with higher abstinence rate.

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Comparison of four recruiting strategies in the smoking cessation

classes

# LAI Yi-Ling, LIU Yi-Hua, CHEN Ching-Yuan, CHIEN Shou-Hsin, CHANG Pin-Yi, LI Shu-Ting

#### Introduction

Around 28,000 people died of smoking—related diseases each year in Taiwan. Smoking cessation classes are available in Taiwan, but how to recruit smokers into the program is a challenge. We developed four different recruitment approaches for the smoking cessation classes and compared the effects thereof on recruitment, decreases in carbon monoxide (CO) vale and smoking guit rates.

#### Purpose/Methods

We implemented 4 smoking cessation classes in 2013, each through a different recruiting strategy, involving community volunteers, district public health center and NGOs, garbage collection institutes and smoking outpatient and hospitalized patients referred by health care professionals. The first three approaches were integrated into the support groups, making use of cognitive behavioral therapy and psychological adjustment skills. The last one worked with meditation and consultation. The programs were generally operated under the five main action areas of the Ottawa Charter.

#### Results

Community volunteers played an important role in the recruitment. Smokers in the number of 24, 23, 14 and 21 were recruited or referred by the community volunteers, district public health centers and NGOs, garbage collection institutes and health care professionals; of the participants, 54 %, 57%, 50%, and 62% reduced the CO values; 63%, 61%, 64% and 67% of them reduced the amount smoked; 36 %, 26%, 29% and 29% of participants stopped smoking at the end of the classes.

#### Conclusions

Regarding effects on the quitting rate at the end of the classes, smokers referred by the community volunteers was the highest. A 3-month follow-up is strongly suggested to examine the subsequent effect and the impact of volunteer support. Overall, smoking quitters referred by health care professional has better outcomes. That was possibly because the class was integrated with outpatient medication for smoking cessation and consultation. Medication and consultation should be integrated into smoking cessation programs.

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# Session P1.1: Supporting reproductive and baby health

Antenatal Screening of Hepatitis C Virus: Prospective Study on Risk Factors of Mother-to-Child Transmission

# YEUNG Chun-Yan, WU Chia-Hsun, HUNG Ta-Chuan, LEE Hung-Chang, FANG Shiuh-Bin, CHEN Hui-Wen, TAY Chow-Hong, CHAN Wai-Tao, JIANG Chuen-Bin

# Introduction

Hepatitis C virus (HCV) infection affects a large number of women of reproductive age worldwide, and transmission of HCV from mother to child remains a serious public health problem. The transmission rates range from 5% to 10% in reported studies. Current understanding of the epidemiology of mother-to-child transmission of HCV is limited. The purpose of this study was to prospectively review and analyze the rate of mother-to-child transmission of HCV infection and to identify the associated risk factors.

# Purpose/Methods

A prospective study was conducted at two tertiary hospitals from 2006 to 2012 in Taiwan. Healthy asymptomatic pregnant women seeking antenatal care were screened for anti-HCV. Women who tested positive were also tested for HCV RNA, HCV genotyping, anti-HIV and liver aminotransferases levels. Possible risk factors for vertical transmission were recorded. Children were classified as HCV-infected if their serum was found to be positive twice for HCV RNA, or confirmed by anti-HCV serological status at the age of 18 months.

# Results

A total of 7,355 healthy asymptomatic pregnant women were screened for anti-HCV, and 44 were found to be HCV-infected. Half of the positive mothers were found to be positive for HCV RNA. All the mothers were negative for anti-HIV. None had intravenous drug use, underwent surgical intervention or blood transfusion. Of the 22 anti-HCV positive mothers, 9 had invasive obstetric procedures such as amniocentesis. Two infants were confirmed with HCV infection. Both were born to mothers with high viral load.

# Conclusions

The prevalence of HCV infection in pregnant women was 0.6% in our study. No co-infection of HBV and HCV was detected. Mother-to-child transmission rate was 9.1%. No significant risk factors for HCV vertical transmission were found including maternal HIV and HBV status, modes of delivery, and premature rupture of the membrane. Universal antenatal screening would ensure that children born to HCV-infected women were properly identified and get appropriate postnatal evaluation.

### Comments

HCV infection is a major global health issue. WHO estimates that the worldwide prevalence is 1-8% in pregnant women and 0.05-5% in children. Vertical transmission is the leading cause of childhood HCV infection. A recent report estimated that 85 to 95% of HCV-infected children have not been identified, presumably due in part to the failure of identifying most maternal infections. Given the inherent inadequacies of risk factor-based screening, several have investigated whether universal antenatal screening would be a better approach.

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# Introduction of Combined Test offer to all pregnant women in Reggio Emilia

# MAZZINI Elisa, BERTANI Daniela, FRANCHI Fabrizia, MESSORI Antonella

# Introduction

The scientific literature shows the need to decrease the use of invasive prenatal testing in favor of the non-invasive one, in order to prevent fetal deaths as a side-effect of invasive procedures (amniocentesis and chorionic villus-sampling CVS), while guaranteeing future parents the possibility to rely on a tool which assesses the risk of an unborn child to suffer from chromosomal abnormalities. There are several worldwide tests to perform a non-invasive prenatal testing of chromosome abnormalities.

# Purpose/Methods

In the province of Reggio Emilia, where more than 500,000 residents live, with approximately 5,000 births / year, with 4 1st level points of birth and 1 2nd level point of birth, we decided to introduce the non-invasive prenatal testing using the Combined Test-CT (Nuchal Translucency and  $\beta HGC + PAPP-a)$  that is offered free of charge to all pregnant women of the Reggio Emilia province, who have recourse to public or private healthcare services. The programme started on 1st of October 2012.

# Results

In more than 1 year after the start of our programme, the following data were collected for the first 12 months: ② 4628 childbirths ② 681 combined tests performed (15% childbirths); out of them 33 had a 4.8% increased risk ② 99 chorionic-villus-sampling for different medical recommendations. Compared to the previous period, we recorded a reduced number of childbirths, more frequent non-invasive prenatal testing by women aged more or less than 35 years. Invasive prenatal testing is on the rise for different reasons, other than maternal age.

# **Conclusions**

The analyzed results are temporary, as it is necessary to wait for the last childbirths (April 2014) in order to have a complete outline of the situation of women joining the Test in the 1st year. The 15% rate of adhesion was good (it represents an underestimate as some women may have recourse to other private/public facilities). The number of positive tests (increased risk> 1: 250) is in line with literature data. The indications for making use of invasive prenatal testing need further analyses.

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The study of Self-management of stress(SMS) of Yoga program for pregnant women in early pregnancy in Taiwan

# LIN Shu-Ling, WANG Shih-Yu, SHIU Shau-Ping, HSU Yu-Shan

# Introduction

Pregnancy lead a process of changing in the endocrine system. Either pregnancy itself or the surrounding affect such as the attitude of family to the pregnant lady can bring lots of stress. Sever stress may lead pregnant women display serious mental problem such as mood swings, impulsivity, and abnormal behavior. A method of self management of stress(SMS) has been proved that help patient of cancer in release their stress. This study were going to use SMS to help pregnant women.

# Purpose/Methods

In this study, 42 ladies in the first to third months of pregnancy process applied to join SMS of program have divided into 21 participants in both control and experimental group by draw. 24 sessions of Yoga program were conducted once a week for 6 months for experimental group. Verbatim used to gather more feedbacks from the interview followed by each Yoga sessions. Brief symptom Rating scale also conducted pre and post experiment for 42 participations.

# Results

Overall score of Brief Symptom Rating Scale reduced 17.82 points and suicide drop 9 points in experimental group, compared to the control group increasing 10.24 point of overall score and suicide add 7 points. Feedback from interviews showed participations improved in emotion, physical health and stress management. They indicated having more positive emotion daily, having better gastrointestinal peristalsis movement, releasing back tention, well weight control, reducing stress and changing the quality of interpersonal relationships.

# Conclusions

SMS of Yoga program in this study included four key training directions which were stimulation, relaxation, awareness and pranayama lead a great improvment of stress management for pregnant lady. Throughout this Yoga program, women learned to ignite eustress, remove distress, create calmness and breath slows down. As the result, Yoga program has helped women in experiment group lower their tension, and bring the extra benifits in emotion and relationships. It support women to overcome their pregnancy.

## Comments

An unexpected result of this study showed all participants had no morning sickness since they engaged in SMS program, and no one absent from course due to the benefits of it. We strongly suggest that SMS of Yoga program can be a add of medication for women in pregnancy, however, the position of Forward in the SMS sequence has been point out pressing participant's stomach, which can be replace to Bridge position to comfort participants.

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The Effects of Yoga for Pregnant
Women with Sleep Quality and Sleep
Apnea: Using a Home Somnography

# CHEN Shih-Ming, SIAO Rxo-Yan, JOU Hei-Jen, CHIEN Pei-Li, HUANG Hui-Ting

# Introduction

Pregnant women may experience sleep problems as early as in the first trimester. In the final trimester, enlarged uterus and occasional uterine contractions can contribute more disturbances of sleep and even result in sleep apnea. However, extant studies have not yet investigated the effects of yoga interventions on the sleep efficiency and sleep apnea of pregnant women. We conducted this study to explore whether professional and systematic yoga courses can efficiently improve the sleep quality of pregnant women.

# Purpose/Methods

In this study, we adopted a pretest-posttest control group design that recruited pregnant women at 20 weeks or more than 20 weeks of gestation. A total of 90 pregnant women participated in this research including 30 in intervention group who received 10 weeks of one hour per week pregnancy yoga, and 60 in control group receiving no intervention. The effects were evaluated by questionnaires and portable somnography that can be done at home.

# Results

The results indicate that women in intervention group had significant less physical symptoms including back, neck, shoulder pain, and decreased appetite. There were no significant differences of both groups in psychological disturbances.



Sommnoghraphy tests showed longer periods of deep sleep and shorter periods of light sleep, which indicates superior sleep efficiency in intervention group. Subjects receiving yoga intervention were reported to have significant improvements in sleep apnea and better self-assessed sleep quality as compared with subjects receiving no intervention.

## Conclusions

This hospital organized a series of regular exercise courses for pregnant women in an effort to address their uncomfortable symptoms. The results of this study show that systematic yoga courses can enhance sleep efficiency and reduce the occurrences of sleep apnea, which are common problems experienced by pregnant women. As a result, by alleviating their anxiety during pregnancy, women at productive age may be more willing to have babies, and this can further increase productivities of their countries.

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# The Experience for Mothers Using Continuous Labor Support Provided by a Doula Prior to Childbirth

# KUO Chih-Jung, HSU Tzu-Chuan

# Introduction

In Taiwan, childbirth is a medical event that involves obstetricianguided processes and decisions. Because cost-effectiveness is crucial in hospital management, obstetricians and nurses are required to attend to several laboring women simultaneously. Therefore, the support and care that laboring women receive can be inadequate. If laboring women cannot manage labor pain, the necessity for medical interventions will increase. Continuous labor support from a doula during the labor stage is one of the most effective and acceptable medical treatments that pregnant women can obtain. Understanding the experiences of laboring women that received continuous labor support from a doula is crucial and aids in understand how laboring women endure and self-adjust to delivery. Obtaining this knowledge from a woman's perspective can improve the clinical care that is provided to laboring women. Therefore, the purpose of this study was to investigate the experiences of laboring women who received continuous labor support from a doula during the labor stage.

# Purpose/Methods

This study adopted an oral history methodology and conducted in-depth interviews with 10 participants. We conducted narrative analysis on the oral history data. Based on the life experiences of laboring women who obtained doula companionship during the labor stage, the similarities and differences in the birth-giving process were identified by discovering the feelings and experiences of laboring women who received continuous labor support from a doula during their labor stage.

### Results

Regarding the feelings and experiences of the participants, the laboring women were able to understand that they were the most important person during the delivery process. They also learned that medication was not the only method for relieving labor pain. In addition, the women's confidence and strength increased, and the continuous companionship and guidance from the assistants reduced their sense of helplessness. Furthermore, their spouses learned from the doula how to attend to laboring women. Conclusion:

# Conclusions

Laboring women require encouragement and guidance during delivery to manage labor pain. Companionship and accurate guidance reduced laboring women's sense of helplessness and lowered the unnecessary medical interventions. The rate of unnecessary cesarean deliveries and fear of delivery increases when the self-control ability of laboring women is not developed and support is not provided during health care-oriented delivery processes. Ensuring that laboring women have a positive and satisfactory delivery experience is critical for providing effective obstetric care that is comforting for women and enables women to use their own abilities to overcome pain from child delivery.

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# Sip of life, drink of love: evaluative survey on nursing skills in breastfeeding promotion

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# Introduction

Breastfeeding promotion is a fundamental activity for welfare and health of mother and child in the community and the nurse possesses the skills necessary to assist the woman in this sweet and delicate stage. This study investigates the nursing skills in breastfeeding promotion, within the innovative project BABY Friendly Community Initiative in which local health public service ASS 1 "Triestina" is involved and in which the nurse becomes an expert in breastfeeding.

# Purpose/Methods

Purpose of the study is to evaluate the relational and educational nursing skills and their effectiveness in breastfeeding promotion, investigating involved mothers' perceptions, and checking if a correct and initially mostly positive approach to breastfeeding, has influenced these perceptions. An observational study was conducted on a sample of multiparous and primiparous women followed by our local public health service. The finale sample

consisted of 68 women. Participation in this study included the compilation of a structured and anonymous questionnaire.

### Results

Women participating in the survey have expressed appreciation for the report sponsored by the nurse and highly effective educational intervention and it was also detected a statistically significant relationship (p-value <0.05) between the correct initial approach to breastfeeding and mothers' perceptions about clarity of information and active listening promoted by nurses. In addition women who experienced breastfeeding complications (28/68), have maintained lactation until 3 months (27/68) and almost all women who have had complications have turned to nurse.

# **Conclusions**

Women in the sample have expressed appreciation for professional support received by nurse and for nurse's educational program. From this study is therefore clear that the nurse has necessary competences to assist the woman during lactation even if the results suggest that it's necessary to improve the level of information consistency given by multi-professional team so as to ensure qualified and integrated health care.

# Comments

Breastfeeding is not just a cold and underestimated practice because natural but a fase to learn and promote; it is an act of connection between mother and child that should be promoted as it ensures not alone their health but also represents the first steps for community welfare.

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# Promoting the 10 Steps to Successful Breastfeeding

# ANG Yen, PONG Kwai-Meng, CHUN Teik-Lan, TAY Pai-Lim

# Introduction

The World Health Organization (WHO) recommends all mothers to breastfeed their babies exclusively from birth to 6 months and to continue breastfeeding with complementary foods up to 2 years or longer. Penang Adventist Hospital is the first private hospital in the Northern region of Peninsula Malaysia to be accredited as Baby Friendly Hospital. In the past 8 years, the hospital has made a conscious effort to promote breastfeeding by enforcing the "10 steps to successful breastfeeding", as recommended by WHO/UNICEF Innocenti Declaration in 1990.

# Purpose/Methods

One way to promote a health behavior such as breastfeeding is through education. Thus, PAH introduces the Antenatal Course which consists of 10 contact hours, spread over 4 days. The goals of the course are first to prepare first time mothers mentally and psychologically to nurse and take care of their baby. Secondly to impart skills and knowledge that will enhance the mother's overall ante-natal experience.

### Results

Our antenatal course has received positive feedback so far. In 2013, we educated 94 couples, of whom 80% were PAH patients. 97% of them were first time parents. Mothers learnt how to nurse her baby by using a mannequin where they were taught how to carry and position their baby during breastfeeding. Other hands-on components well-received are: a) the Prenatal & Relaxation Exercises where husbands are taught how to give their partners a back massage during labor to help them to relax. b) The Baby Bath demonstration where couples learn first-hand how to bathe a newborn baby. c) Diaper practice: fathers-to-be have the experience to bathe the babies and change their nappies.

# Conclusions

Our entire pediatrician team at the hospital is fully committed to helping mothers breastfeed their babies. The course is taught by an interdisciplinary team which includes obstetrician & gynecologists, pediatricians, anesthesiologist, dietitian, lactation nurse, physiotherapist and health educators. Many other services have been added on over the years to promote and encourage the continuity of exclusive breastfeeding. The antenatal course is the first step towards helping our pregnant patients adopt a health promoting practice that is good for both mothers and child.

# Comments

The Antenatal Course covers a wide range of topics besides breastfeeding; it includes delivery and care of the new born. For examples Pain Relief in Labour Video on Epidural Anaesthesia Prenatal & Relaxation Exercises Breathing Techniques in Labour Immunization & Minor Problems during infancy Baby Bath Demonstration Participants appreciate the practical aspect of the course. Health education such as this empowers our patients to go through the child labor experience and beyond (care of new born, breastfeeding etc) with pertinent knowledge and skills.

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# A Study of the Influences of Early Skin-to-Skin Contact on Mothers and Babies

# WU Li-Yi, SU Yi-Hsien

# Introduction

Early skin-to-skin contact can help to stabilize newborn babies' life signs, reduced their mothers' postpartum hemorrhage, successfully continue to breast-feed them. Clinically, women who



have given birth to their children by cesarean section Often due in part to refuse to implement the skin contact often refuse to skin-to-skin. Thus, this study aimed to explore the influences of immediate skin to-skin contact on obstetric delivery table as required by the baby friendly hospital standards on mothers and babies.

# Purpose/Methods

We used the observation and retrospective method. The research subjects were 200 women after childbirth during 2012/3/1~/9/30. These subjects were categorized into the experimental group and the control group. Outcome were compared babies body temperature changes, mothers' postpartum hemorrhage conditions, and breast-feeding conditions 1 month after childbirth. between the two groups when babies were given to their mothers on tables after childbirth without anything such as clothing between they and their mothers with skin-to-skin contact for at least 10 minutes.

### Results

This study found that postpartum hemorrhage 0% of the mothers with skin-to-skin contact with their babies, 2% of those without skin-to-skin contact had. 1 month after childbirth, the breast-feeding rate of the mothers with skin-to-skin contact was 38% higher than those without skin-to-skin contact. And averagely the body temperatures of the newborn babies with skin-to-skin contact increased by  $0.1^{\circ}0.4$  oC.

# **Conclusions**

These results indicated that early skin-to-skin contact helped to stabilize newborn babies' body temperatures, mothers to continue breast-feeding, and to reduce chances of mothers having postpartum hemorrhage.

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# Session P1.2: Using health promotion to Improve parental skills

Attention-deficit/hyperactivity disorder child cargiver mental health literacy study

# CHAN Shu-Min, CHANG Chu-Hui, SHEN Shu-Hua

# Introduction

To investigate the relationship between caregiver of attention-deficit/hyperactivity disorder children joining supportive group and mental health literacy.

# Purpose/Methods

By using voluntary filling questionnaire, the subjects are 69 diagnosis as attention-deficit/hyperactivity children caregiver from some mental specialize hospital, to collect data from socio-demographic of caregiver, sick children history, category of joining groups and mental health literacy score. The MHLQ score was developed by South California university mental health research center has 28 questions in total with six dimensions (faith value and capability, right faith, knowledge/realization, functional behavior, critical behavior and communication behavior) .

# Results

The average score of mental health is 69,joining groups associated with caregiver and sick children got higher mental health literacy score which compare with those do not join, go further by using regressive analysis to analyze control group of caregivers age, degree of education, age of children, group joining also show significant difference, age of caregivers show negative correlation, explainable variable is 30%. There shows no relationship between age of children and education of caregivers.

# Conclusions

According to our found , we should add intervene of psychologist , social worker, nurse and other professionals except medical treatment. To provide social support network and adaptation to caregiver is an effective method to improve pressure and enhance responsive capability.

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# The effects of cognitive-behavior grouptherapy in early childhood intervention's parents

# CHEN Chaofen, WU Minling, CHIANG Hsinju, CHEN Yahsiu

# Introduction

Recently years, "Family-Centered" service is a main model in early intervention. Therefore, outcome evaluation of early intervention should be focused on not only the child development delay or not, but also the family aspect such as parenting skills or parenting stress. Cognitive behavioral group therapy, or CBGT, this form of therapy does make a stronger emphasis on interaction and cooperation between patients rather than that between the therapist and the patient. The study focused on parenting skills and parental stress.

# Purpose/Methods

during the group, we hope the parents learning the parenting skills and how to adapt stress. in this program, we have 15

participants, who has kids accepted early childhood intervention. The group has 8 sessions sustaining 4 weeks and per time has 2 hours. The effects of CBGT be evaluated by leaders and parents in five aspects. the aspests are 1.Learning about self from other group members;2.Catharsis; 3. Increased sense of belonging 4. Universality5.Guidance regarding constructive behavior.

## Results

the self rating and report of the five aspects above below: 1.Learning about self from other group members: the parents learn and discuss the parenting skills each others in CBGT. 2.Catharsis: the parents share their emotion in CBGT and get suports from others. 3. Increased sense of belonging: in CBGT, group cohesion high, they feel comfortable in CBGT. 4. Universality:they are learning that ones reactions were shared by others. 5.Guidance regarding constructive behavior: they learn how to use behavior therapy at home.

# Conclusions

In this CBGT, the members shared their experience and gave feedback each other. To accept other suggestions to make some changes of behavior and cognition; this is also the characteristic of CBGT. This CBGT's attributions are 1. using structive CBGT to teach the members adapted negative emotion. 2.using peer group to support each others and to force the motivations of changes. 3. segment exercise to force the effects of cognitive and behavior changes.

# Comments

In this study, the members feel effective to themself. But the limit is the sample too small to deducte to others.

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# Group-based brief parent-training interventions for improving parent-ADHD children relationship

# LIN Chi-Chin, CHANG Chih-Hsuan

# Introduction

Children with attention deficit hyperactivity disorder (ADHD) were less compliant and their parents gave more commands toward them. Parent training group is one of the effective ways to change parenting behaviors and therefore treat ADHD. However, due to increased demand, parents and children with ADHD need to wait for long time to receive intervention. In order to provide a time-saving and efficient treatment, we offer a two-session group-based parent training for maladaptive parent-child interaction.

# Purpose/Methods

Participants were recruited from hospital clinics. Seven mothers of ADHD young adolescents served as subjects. Two sessions

were conducted by two clinical psychologists, each session lasted for 2 hours. Session 1 focused on enhancement of parental sensitivity and better ways of listening and responding to children. At the end of session 1, parents were assigned homework to discuss with their children about one maladaptive behavior. Session 2 focused on the review of homework and principles of behavior modification.

# Results

Six mothers attended both sessions. They evaluated children's changes between baseline and follow-up (1) the intensity and duration of temper tantrum during parent-child communication; (2) the quality of parent-child interaction. A nonparametric sign test was conducted to examine the therapeutic impact. Significant effects were found in decrease in duration of anger episodes (p = 0.03, sign test) and improvement of parent-child interaction (p = 0.03, sign test). All mothers also reported decreases in children's maladaptive behaviors after the communication.

# Conclusions

A brief group-based parent training for children with ADHD was proved to have therapeutic effects, though some of the parents expected further intervention. Subjects displayed positive changes in parental function and parent-child communication after the brief course. Decreased intensity and duration of children's temper tantrum during communication were also reported by parents. The limitation of present study is lack of follow-up treatment effectiveness.

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# The Health Education Needs of Parents of Overweight or Obese Infant in Urban Areas for Assessing Children Development

# **HSUEH Huei-Chen, HSU Tzu-Chuan**

# Introduction

In 2010, according to the World Health Organization (WHO), 43 million children under 5 years of age were overweight. A 2008 survey report indicated that 1 in 4 children in Taiwan were overweight or obese. Thus, childhood obesity is a global issue. Childhood obesity can directly affect child growth, social and psychological development, and cause breathing difficulties, high blood pressure, high cholesterol, hyperglycemia, cardiovascular disease and can increase the morbidity and mortality caused by chronic diseases in adulthood. Research has shown that infancy is a critical period for preventing childhood obesity. Children rely on parents to provide sustenance; consequently, parental attitudes and behaviors affect child growth and health.



# Purpose/Methods

This study investigated parental views and behaviors in urban areas toward childhood obesity prevention and examined needs of parents for health education of child growth assessment. The research method was used a cross-sectional and correlational study. We investigated overweight or obese infants in a regional Taipei hospital by employing the new version of the 2006 WHO Child Growth Standards charts (weight-for-age、BMI and weight for length & height). Based on body height, body weight, sex, and age, infants above the 85th percentile were selected. Overall, 250 infants were evaluated. A self-compiled structured questionnaire pre-test was administered to the parents after their babies were born. Parental health education needs for assessing child growth were investigated during the mother's hospitalization and a posttest was administered to the parents 1 week after returning home. The questionnaire content contained items on demographics, parental knowledge of obesity, parental perceptions about growth percentiles, the correct usage of growth percentiles, and parental health education requirements. Statistical software SPSS version 19.0 was used to analyze the

# Results

This study investigated 113 boys (45.2%) and 137 girls (54.8%). The minimum pregnancy weeks was 34 and the maximum was 41. Infant birth weights ranged between 3.74 and 5.02 kg, averaging 3.98 kg. Infant birth lengths ranged between 47.5 and 55.0 cm, averaging 51.57 cm. The order of growth index of an average growth percentile in weight for age, weight for length & height, and BMI from babies born was Weight for age <BMI <weight-for-length & height.An independent-samples t test indicated that pregnancy week numbers were correlated with infant birth weight and length. Parental views of infant obesity prevention were positively correlated with parenting behavior (P < .05). Regarding childhood obesity, 72.25% of parents considered that infants below the 95th percentile were healthy and 55.34% of parents expected their children's weight to be above the 75th percentile. The percentage of correct responses concerning using and reading the children growth chart increased from 5.98% to 85.26%. Overall, 88.76% of parents indicated that they had not received instructions for using the children growth charts. Parents hoped to receive health education before childbirth and obtain information through hospital-led courses, Internet inquiries, and personal instructions from professionals.

# **Conclusions**

Parental attitudes and behaviors affect children's dietary habits. Because parents are responsible for raising their children, they must be educated to ensure that healthy dietary habits are established for their children. Most parents believed that highweight infants were healthy, indicating that numerous parents were unaware of their child's obesity. This study incorporated child growth assessments in health education courses, which are provided to parents before hospital discharge, to enhance parental cognition and knowledge on obesity and mitigate problems concerning childhood obesity.

# Comments

Taiwan currently assess infant growth index of body figure by using the weight-for-age to display low average growth percentile. According to three indicators of child growth monitoring results, there are different growth percentile . The

screening result of BMI and weight for length & height was different to domestic current weight-for-age because of including the mutual influence of height ratio. The research could provide a reference for people by studying the growth indexes of children.

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Using "Speak from the Heart Cards" to improve self-expression and self-awareness in support groups for parents of children with developmental disorders

# **WANG Shih-Yu**

# Introduction

Parents who are raising kids with developmental disorders such as ADHD, Autism and Developmental coordination disorder, comunication disorders and learning disabilities bear heavy pressures in parenting, relationships, society and community, and self expectation which have lead to lower their Quality of Life. Support groups for those parents are suggested to help them. In this program, a set of cards naming "Speak From the Heart" were used as an add material in support group to help members expressing and being aware themselves.

# Purpose/Methods

This program was using "Speak From the Heart cards" to help parents of kids with developmental disorder to express their feeling and inner thought in support group. 40 printed descriptions were divided into four parts, Understanding-My-Own Feelings, My-Feelings-To-My-Child, My-Feeling-To-Family-and-Friends, and My-Feelings-To-Society. Members of support groups were suggested to take few minutes reading all cards and choosing one to represent his/her own right-now feeling and speak it out. Personal experinece related to the card would be encouraged to share in group.

# Results

Written feedbacks from members indicated that they had better understandings of anxiety after using Understanding-My-Own-Feelings-Card. Cards of Expressing-My-Feelings-to Society were confirmed that well helping parents to speak out their feeling to society which were usually being hidden. Some members responsed that life changed when they use cards to communicate with children and families. Moreover they felt more confident and releases in their daily parenting, working and life after support group. Most of members said this Cards exactly express them.

# Conclusions

Parents of children with developmental disorder sustain more stress than others. A well support group helps parents to cope their problem and to relase their emotion by sharing their experience. This program has showed a method of using "Speak From the Heart cards" to assist parents opening up their feeling of child, themselves, family and friend, and society in the group. Members were benefit not only in the support group, but using it in their daily life.

# Comments

"Speak From the Heart Card" has been used in support group to well help parents of kids with mental disorder to be aware their inner thought and express their feelings. According to the feedback of members, it can be also considered as a communicating cards in their family. Despite the subject we studied in this research, support group for single parents or parents of kids with disability can be the further research applications of this Cards.

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# Session P1.3: Promoting the health of the socio-economically disadvantaged, of migrants and minorities

Clinical awareness analysis in cultural competence of healthcare professionals

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# Introduction

Cultural competence has been defined as a set of knowledge, attitudes, and behaviors applied to policies or programs which impact on a person, organism or system, and which make it capable of working effectively in intercultural contexts Cultural competence training programs aim to raise cultural awareness, since it promotes changes in individual behavior patterns that are reflected in the efficient interaction between patient and health professional. The aim is to describe the degree of awareness of the ability of health professionals to acquire clinical-cultural competences

# Purpose/Methods

Descriptive and cross-sectional study. Clinical-cultural Competence Questionnaire pre-training version validated. Study population (N = 1685) We analyzed awareness regarding: the significance of socio-cultural factors in the care providing relationship (A), awareness of own values, stereotypes and

prejudices (B), importance of training in cultural competence (C). Studied in terms of gender, age, occupation and service. Responses were grouped into three categories: none /a few (value 0), some (value 1) and quite / much (value 2).

### Results

We obtained 573 valid questionnaires. The variable A shows the best results in men (95.31%) in the age group of 39-45 years (95.10%) in nurses (90.64%) and in the geriatric services (98.46%). The variable B: men (78.13%), <30 years (84.56%), doctors (78.53%) and surgical specialties (82.85%). The variable C: women (77.85%), > 49 years (80.95%), other professionals (81.25%) and in the geriatric services (87.69%).

# Conclusions

The results suggest that the degree of awareness of cultural competency training is higher in men in all occupations in the sample, in the service of geriatrics and in all age groups studied

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# International Patienrt service

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# Introduction

From 2010 to 2012 the foreign patients's hospitalization to Ordinary and Day Hospital admissions represents 10.9% of the total requests: 29.902 admissions of the total 273.697. The International Patient Service, has been organized to meet the requests of non-Italian population. A team aiming to support the foreign patients handles the administrative procedures by coordinating the requests of admissions and offering help at 360 degrees. The Symbols are a geographic map, a colorful map of the world and an English dictionary.

# Purpose/Methods

Provide support to the foreign patients; breaking down the barriers of different languages; Make an accommodation available to needy families.

# Results

In order to facilitate the handling of bureaucratic procedures the foreign families will be supported by a team providing administrative advice thru a call center and face-to-face service. Cultural mediation in 30 languages is offered with interpreters available in short time and a call center ensuring phone communication in 90 languages the almost real-time. The poorest families can have access to our Free Homes thru a triage regulating the admission priorities.

# Conclusions

In the XXI century when people are struggling to achieve the universality of human rights, and time barriers are broken down thru modern and sophisticated transportation and



communication tools, the Hospital long time ago decided to open the doors to foreign families.

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# Clinical hospital managing and Ethnonursing in the case of childhood and adolescence

# CENCI Luigina, TAVONI Maria Antonietta, MANNI Marilena, PASQUINI Angelica, MARTINELLI Martina, FRASCIONE Giulia

# Introduction

Nowadays, the anthropological phenomenon of human migration all over the world is changing from a diffused and undeferrable emergency to a reservoir, requiring daily appropriate tools to establish an integration between languages and cultures and to achieve a new welfare state. The achievement and the management of this condition need a constant and consistent contribution by social and health institutions.

# Purpose/Methods

Since 2003 our Hospital provided mothertongue operators, either full-time or on call, for linguistic and cultural mediation. Since 2009 brochures published by Salesi Foundation are also available in nine different languages and distributed to the users in different operational units when inquiring about medical history. According to Hospital Management Guidelines and the application of the Spending Review rules, since 2013 a customeroriented Help Voice devoted to the project has been proposed as a new working tool.

# Results

From 1998 to 2013 (fifteen year reports) registration of foreigners at Children's Neuropsychiatry Unit, Salesi Hospital, Ancona, has increased from 4.8% to 21.3% out of the whole hospitalized patients. Ethnic groups come from four continents (Eastern Europe, North Africa, India-China, South America). Therefore, in addition to measures already choosed ,we directed our assistance strategics to educational multiprofessional paths (ethnonursing meeting, english language courses) towards our clinical Operators.

# **Conclusions**

A constant tailor-made operator training can empower themes and promotional challenges in children's and adolescence ethnoneuropsychiatry and ethno-nursing to improve the project and fulfill the scheduled objective. The ethno-related socio-cultural change in a clinical environment should not be feared as a destabilizing phenomenon, and a positive attitude should become the model for a change concerning the evolution of humankind.

### Comments

Human migration phenomenon undergoes to a deep community transformation based on multiethnic cultural rules. In this situation, the "core" problem consists in realize needs of hosts that express completely different social background and knowledges. Moreover, the reception of their items has to be provided by a ready and age referred Welfare System able to get specific replies in appropriate managing terms (intervention strategies, actions, operators specific tools).

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# An analysis of somatization tendency and influencing factors of North Korean defectors

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# Introduction

North Korean defectors have been increasing each year and have surpassed 20,000 people. They are exposed to a number of illnesses and traumatic experiences during escape from North Korea, and that would be a negative impact on their mental health. North Korean defectors visiting hospitals complain numerous physical symptoms that are not consistent, and they have a great distrust of the physician.

# **Purpose/Methods**

we wished to study about somatic symptoms among the North Korean defectors. So 123 North Korean defectors who visited National Medical Center and Seoul Medical Center were included in this study. The control group was 114 South Korean residents who visited family medicine outpatient clinic and health promotion center of Seoul Medical Center. We asked about socio-demographic factors, traumatic incidences(North Koreans only), past medical history as well as somatization and depression dimension of SCL-90-R.

# Results

Somatization scale of SCL-90-R T-score of North Korean defectors was higher than that of control group(p<0.001). Somatization scale of female was higher than that of male in North Korean defectors(p=0.003). Somatization scale of North Korean defectors who have experienced traumatic events was higher than that of other group, but was not statistically significant(p=0.055). Independent factors associated with somatization tendency that were significant by logistic regression method were gastritis(OR 8.53, Cl 2.71-26.85), cystitis(4.81, 1.23-18.79) and depression(21.68, 5.17-90.93).

# Conclusions

North Korean defectors have more somatization tendency than South Korean control group. Especially, female defectors or who have symptoms of gastritis, cystitis, depression have more somatization tendency.

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Validation of a Patient-Centered
Culturally Sensitive Health Care Clinic
Inventory Using a National Sample of
Adult Patients

# RONCORONI Julia, TUCKER Carolyn M., WALL Whitney

# Introduction

There continue to be national calls for patient-centered culturally sensitive health care as a tool to decrease health care disparities (American College of Physicians, 2004). One of the barriers to promoting patient-centered culturally sensitive health care is the lack of reliable measures of the quality of care patients experience (Surgeon General, 1999). Mirsu-Paun et al. (2010) point to the limitations of existing measures: (a) their items are not based on empirical data; (b) they were developed from the perspective of professionals rather than patients; (c) they concentrate on specific knowledge pertaining to racial/ethnic groups, disregarding broader aspects of culturally sensitive health care; and (d) they are grounded on inconsistent operational definitions of culturally sensitive and culturally competent health care. Furthermore, recommendations for increasing patientcentered culturally sensitive health care mostly concentrate on specific provider behaviors and attitudes while research shows that the clinic environment also has an impact on the quality of care experienced by patients (Brach & Fraser, 2000). The Tucker Culturally Sensitive Health Care Inventory- Clinic Environment (T-CSHC-CE) was developed to assess whether health care centers implement policies and have physical environment characteristics identified as culturally sensitive by adult, culturally diverse patients. The purpose of the present study was to determine the factor structure and internal consistency of the T-CSCHI-CE, using a culturally diverse national sample.

# Purpose/Methods

Participants Data was collected from 1,639 patients (1047 women, 529 men, and 63 who did not report gender) who receive health care at one of 67 health care sites across the United States who volunteered to participate in the present study. Of all the participants, 20.1% self-identified as African American; 32.3% self-identified as non-Hispanic White; 30.0% self-identified as Hispanic/Latino; 9.7% self-identified as from other race/ethnicities; 7.9% opted to not provide race information. Age was assessed in categories of 18-24, 25-34, 35-44, 45-54, 55-64 and 65+ years, and relevant sample percentages

were 16.8%, 20.1%, 20.9%, 22.3%, 12.3%, and 4.9% respectively, with 2.8% of the sample opting not to report age. Measures All patient participants completed an Assessment Battery that included a Demographic Data Sheet (DDS) and the Tucker Culturally Sensitive Health Care Inventory- Clinic Environment (T-CSHC-CE). The DDS was constructed by the present researchers and used to obtain information on participating patients' race/ethnicity, gender, age, and household income. The T-CSHC-CE consists of 25 items that identify the physical characteristics and policies that patients in an earlier published focused group study (Tucker et al., 2007) reported as enabling them to feel comfortable, respected, and trusting in the health care delivery process. The instructions on the T-CSHC-CE ask participants to rate (using a scale of 1-do not agree to 4-strongly agree) their level of agreement that the listed health care center characteristics exist at the health care center they use most Procedure Participants were recruited by trained community member data collectors through flyers at their health care sites, which included the participant inclusion criteria. These criteria are: (a) being at least 18 years old, (b) being a patient at one of the participating health care sites, (c) being able to communicate either verbally or in written form in English or Spanish, and (d) signing an informed consent form agreeing to participate in the study. Participation involved anonymously completing an assessment battery and returning it in a sealed envelope to the data collector, and then receiving the mailed \$15 to an address written on their signed informed consent form.

# Results

Preliminary analyses indicated significant negative skewness and negative kurtosis values for most items. Skewness and kurtosis were reduced by Blom-transforming items (Blom, 1958). Skewness remained significant, so for the confirmatory factor analyses that followed, we examined the proposed structure under both normality and non-normal assumptions. exploratory factor analysis (principal axis factoring using Promax rotation) was conducted with the full 25-item set of Blomtransformed items, using listwise deletion of missing cases (N = 1,101). A one-factor solution consisting of 9 items explained 53% of the variance in the indicators; two- and three- factor solutions were also explored but only explained minimal incremental variance. Because the one-factor solution was consistent with a priori conceptions of the underlying dimensions, it was reinvestigated. This solution perfectly reproduced the solution found with the full set of 25 items, explaining 62% of the variance in the set of indicators. The eigenvalue of the one-factor solution was 5.548, and all loadings exceeded 0.6. The 9-item exploratory factor analysis was re-examined, incorporating the full available sample (N= 1,639), using multiple imputation for missing values. The results on the full-sample imputed data set were nearly identical and explained 63% of the variance in the indicators. A CFA of the 9-item subset with Blom-transformed scores yielded an adequate to excellent model fit, 2(134) = 1426.97, p < .001. However, given the significant skewness that remained even after normalization, CFA of the 9-item subset was conducted, treating items as ordinal (using robust maximum likelihood and logistic parameter estimation), yielding a model that estimated normally, 2(19) = 655.701, p< .000. The one-factor solution was reexamined in Amos 16.0 using full information maximum likelihood estimation with the parcel indicators and with the total available sample. Model fit was excellent, 2(2) = 3.603, p < .001. In a final step, the TCSHCI-CE evidenced excellent internal



consistency reliability. Alphas were computed for four situations: (1) subscale alphas for listwise deletion sample (Competence/Confidence= .96, Sensitivity/Interpersonal Skill= .94, Respect/Communication= .94), (2) subscale alphas for total sample (.95, .93, .94 respectively), (3) total scale alpha for listwise deletion subsample (.97), and (4) total scale alpha for total sample (.97).

# Conclusions

The T-CSCHI-CE was developed to address limitations of previous assessments of cultural sensitivity and competence. When used with a national sample of patients, this measure demonstrated excellent internal consistency and a very good factor structure. Thus, the T-CSCHI-CE has much potential as a vehicle for culturally diverse patients to provide feedback to health care administrators on the degree to which their health care centers have the characteristics that are reflective of patient-centered culturally sensitive health care.

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# Informed Consent and Professional Interpretation

# ABRAHAM Elizabeth, ANSTEY Kyle

# Introduction

Global migration continues to place an unprecedented burden on social services for receiving countries throughout the world. Migration policy, often driven by a need for unskilled labour, tends not to require language proficiency for entry, resulting in an enormous demand for interpretation services. While migrants may be entitled to services, including health care, the country's ability to bridge the language barrier is a critical determinant of health for the this population.

# Purpose/Methods

Despite human rights legislation guaranteeing access to public services, including healthcare, and the consequent demand for interpreters, the provision of interpretation services varies across Western Europe, Australia, the United States and Canada. Many organisations encourage, but do not require, the use of professional interpretation services, while discouraging, but not prohibiting, informal interpretation through untrained, bilingual staff or the patient's family members. In fact, many jurisdictions have yet to develop an infrastructure of formal language services in the healthcare sector.

# Results

The failure to mandate use of professional interpretation services leads to serious ethical issues in patient care: most notably, failure to obtain informed consent to treatment. These stem from family members' frequent lack of proficiency in both languages; their lack of knowledge of medical terminology in both languages; and their tendency to filter the information intended for the

patient, often in an effort to "protect" the patient, which may lead to a failure to disclose serious diagnoses to patients.

### Conclusions

The right to informed consent is considered a fundamental right in the European Union, Australia, the United States and Canada. Legislation recognises the integrity of the body and respect for an individual's autonomy to determine what happens to their body. These rights are not implicitly waived in the face of a language barrier. Yet in the absence of a professional interpreter, no one can confirm that the ad hoc (untrained) interpreter has repeated the consent discussion thoroughly and accurately.

# Comments

Treatment without consent is battery (non-consensual touching that is harmful/offensive) or assault, depending on the jurisdiction. Unless the proposed intervention is life-saving, a language barrier is not a justification for treating without the patient's full understanding of, and agreement to, associated risks of a recommended procedure. In a diverse population, a culturally responsive healthcare service must assume responsibility for ensuring access to language services to protect both the patient and organisational liability, and to reduce overall costs of care.

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# Linguistic and cultural mediation in healthcare system

# BICEGO Livia, GERIN Daniela, IURMAN Valentina, ASSOCIATION OF CULTURAL MEDIATORS INTERETHNOSONLUS

# Introduction

The recent intensification of migration flows has led to an increase in attention devoted to migration phenomena by Italian. Greater clarity in legal framework regulating access to social and healthcare systems by migrant citizens legally residing in Italy highlights the need for actions aimed at supporting the latter in communication with relevant bodies, improving their access to healthcare services, while facilitating a smooth coexistence of host and guest cultures and fostering integration. The role of cultural mediators proved a pivotal element in this process.

# Purpose/Methods

Cultural mediators of INTERETHNOS Association play a fundamental role in facilitating communication between healthcare operators and migrant citizens in our region, thus improving the latter's access to relevant services and contributing to a better and smoother functioning of social and healthcare services. They provide following services: assistance to social and healthcare operators in therapy planning and in doctor-migrant

patient relations (information gathering, first examination, operations/therapy, discharge, follow-up); linguistic counselling; ad-hoc translations of medical records, informed consents, etc; assistance of migrant patients in carrying out administrative procedures (examination reservations, health insurance card, documents collection, etc).

## Results

The first agreement between A.S.S no.1 and INTERETHNOS was signed in 2003,thus commencing an ongoing,10-year long collaboration.Furthermore, since 2009,INTERETHNOS has been providing an Info Point service for migrant and foreign citizens within A.S.S. no.1 premises.In last five years mediators activity amounted to more than 8,800 hours of mediation in various healthcare structures under A.S.S. no.1 jurisdiction,and more than 4,000 hours of mediation and assistance at Info Point.

# **Conclusions**

Constant monitoring and yearly statistical evaluations of the users' profile and distribution on the territory have allowed both the A.S.S. and INTERETHNOS to streamline and tailor mediation interventions on the basis of the users' (migrants and healthcare operators) needs and have confirmed the validity and usefulness of the current approach.

# Comments

Migration is not a passing phenomenon in Italy, and in FVG region in particular, and, as such, it needs prompt, opportune, and constantly updated actions by all actors involved. The presence of mediators who can boast an in-depth knowledge of both host and guest cultures has served as catalyst for communication, dialogue, and, eventually, comprehension and integration of the latter.

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# Improve the health awareness and medical utilization - an example from the Urban Amis Indigenous

# SU Yu-Mei, WENG Chung-Feng, KAO Wei-Chin

# Introduction

The Urban Indigenous, mostly Amis people migrated from original habitat to the urban area for long period times. Because of their social and economic disadvantage, they often ignore the importance of their personal health issue. They also do not know how to link with the health resources which lead to inequality of health. Therefore, by combining their native culture and various health empowerment activities, their health awareness and medical utilization are enhanced.

# Purpose/Methods

The implementation strategies for improving tribal health awareness and medical utilization are as follows: 1. Employing Amis culture to enhance health awareness 2. Visits and physiological measurements by the health promotion nurse once a week. 3. Restore medicare status and enhance medical utilization through resources links. 4. Provide referrals and accompanying to medical visits, for the purpose of bringing up habits for seeking medical advice and self health management.

# Results

After performing 8 seminars, a total of 195 people participated while 70 of those are willing to accept health services. Among these 70 people, 52 people (74.2%) regularly track their physiological measurements which lead them to value the importance of personal health, 33 people (47.1%) are willing to accept our assistance of referrals for medical treatments which will also help them in developing their medical habits. Among these 33 people, there are 23 (70%) medical revisit. Among these 23 people, 16 people (70%) regularly take their medications to reduce the possibility of high risk complication.

# Conclusions

Combining health education and Amis culture, weekly visits and medical resources links by the nurse cause a significant impact in the health awareness and medical utilization of the indigenous people.

# Comments

To promote the formation of tribal health awareness, the youth can start organizing health groups that assist in tribal health rebuilding. For the purpose of giving a more healthy and comfortable life to those tribal people that originally live in the health inequality environment.

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The Effect of Health Promotion in Indigenous Disabled Population After the Introduction of the Community-based Outreach Rehabilitation Programs

# WANG Chung-Yuan, HUNG Chia-Hui, LEE Kai-Chun, HSIAO Li-Chen, CHEN Yu-Ren, YU Kwong-Leung

# Introduction

Taiwan National Health Insurance (NHI) was launched in 1995. It is an important social welfare policy in Taiwan. Regardless of the diversified social and economic status, universal coverage of NHI was assured. However, the equity of health-care delivery is



associated with the resource allocation and accessibility. The availability of the health-care service in the remote area is still constraint. Therefore, the aim of this study was to investigate the outcome of health promotion in indigenous disabled population through the community-based outreach rehabilitation programs.

# Purpose/Methods

Forty subjects belonging to six tribes were included. Nineteen of them were noted with stroke and 21 with severe arthritis. After physiatrist's systemic evaluation, the subjects received 6 months rehabilitation programs. Once per week physical therapy, life style instruction and home exercises were included. Activity daily life performance (Barthel Index), Instrumental activities of daily living (IADLs), Euro quality of life five dimensions questionnaire (EQ-5D) and Postural Assessment Scale for Stroke Patients (PASS) were used to measure the training effect.

# Results

Improvement were noted in Barthel Index ( $\rho$ <0.001), PASS ( $\rho$ <0.001), EQ-5D ( $\rho$ <0.001) and IADLs ( $\rho$ <0.001). Besides sphincter control, the other 8 items in Barthel Index were statistically significant differences. All five dimensions in EQ-5D and all eight dimensions in IADLs got statistical discrepancies. Among those stroke patients, the improvement in PASS was obvious ( $\rho$ <0.001).

# **Conclusions**

Community-based outreach rehabilitation do help indigenous disabled people promote their health in our study. Not only physical pain decreased, but also psychological status improved. No longer withdrawing in the house, their mobility increased and they had better community participation. Since their self-care performance improved, their family also got better health status.

# Comments

Over 95% population in Taiwan are supported under the Taiwan's National Health Insurance system. Improving the health care of people in remote area is always an important issue. It is not only related to the equity of medical care but also the human right. We contribute a model promoting indigenous disabled people's health condition through the community-based outreach rehabilitation program successfully. The number of the subjects and the rehabilitation frequency are limited. Further study will be needed.

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Reducing health care barriers for socioeconomically vulnerable groups

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# Loukia, KAPAGIANNIS Vasileios, SAKELLARIADIS George, PAPAGEORGIOU George

# Introduction

Patient-centredness is a priority in Type 2 Diabetes (T2D) care. Identifying subgroups at high risk of poor outcomes is an important goal.In addition to obesity,age is one of the most important risk factors for T2D and the burden of the disease is very high in older age groups.So a key approach is to increase health promotion efforts ,especially for remote areas' T2D patients with difficult socioeconomic living conditions.

# Purpose/Methods

The purpose of this study was to improve primary care-based health promotion to the disadvantaged area of Neapolis ,Lakonia by improving access and use of a –for the first time-once weekly visit by a diabetologist of the outpatient diabetology clinic of our Hospital, situated 50km away. This is a forbidding distance for the great majority of this old age population, especially for the low income pentioners and unemployed during the ongoing four year socioeconomic crisis in Greece.

# Results

A total of 125 patients with T2D were recruited from January till December 2013. (46 female and 79 male ). Mean age:62,48 years (range 45-88) . After 11 months of our intervention we have found the following from baseline mean improvements: BMI :29,50 to 28,2 kg/m², Hba1c: 8,5 % to 7,2% , Systolic Blood Pressure :160 to 135 mmHg , LDL :140 to 95 mg%, HDL :35 to 39 mg% ,TGs :180 to 150 mg%

# Conclusions

The findings of our pilot study show better accordance with the established T2D targets.Because of the co-occurrence of many diseases in the elderly effects of these better access to the base type interventions, may be difficult to measure in the short run. The strong association of diabetes with age is of particular concern given the global ageeing of the population.It is of outmost importance for policy-makers and research funding agencies turn their attention to this population developping successful preventive strategies.

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An approach for treatment continuation of patients who have noncommunicable disease, and treatment discontinuation of low-income patients.

# **MURAKAMI** Eriko

# Introduction

Oizumi Health Cooperative Hospital is the medical institution and Tokyo Health Co-op operates it. We open a non-reserved outpatient clinic in the hospital. In it, doctors change every day. Many patients who have noncommunicable diseases are visiting this clinic. We investigated the state of their visits and found the facts that many patients discontinued their treatment for low-income. We report the extracting process and some cases.

# Purpose/Methods

Our office staffs extracted 1,500 patients with bronchial asthma, diabetes, and hypertension in noncommunicable diseases during 3 months from April to June 2013. Next, we analyzed medical records and prescription histories and examined the situation of patient's visits. Based on the results, we shared patient's information with outpatient nurses and contacted extracted patients in face-to-face or by telephone. We guided patients to internal medicine specialist and performed the appeal of continuation of treatment.

## Results

As a result of examination, 400 of 1,500 patients were extracted. In addition, we selected 26 patients who had higher priorities than others. We shared their information with nurses. From interviews by nurses, we found that some cases discontinued their medication for economic reasons. Therefore, in order to reduce the economic burden of patient's health care cost, office staffs made efforts to promote them the use of public funds subsidy system. Now we are getting some success.

# Conclusions

Because it took too much time in this method, so we failed to grasp the whole, but we estimated that more patients with low-income had discontinued their treatment. In Japan, everyone can receive medical services at any medical institution nationwide by the Japanese health insurance system. Nevertheless, we found that disparities in health care by social determinant like poverty exist. We think the need for smart system that allow approach to a wider patients continuously in the future.

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Challenges in Creating Cultural Sensitive Environment in Health Promoting Hospital in Taiwan

# **HSIEH Jyh-Gang, WANG Ying-Wei**

# Introduction

As an aging society, Taiwan is experiencing a rapid growth of its elderly population. Many frail elderly people cared by foreign

caregivers substitute family members. Most of the caregivers for hospitalized patients are employed by families to work 24 hours a day, 7 days a week. Miscommunication between foreign caregivers and medical staff emerged due to cultural and language barriers, which could be further worsened by compromised adaptive capacity of foreign caregivers, adversely influence quality of health care.

# Purpose/Methods

Issues of culture, adaptation and communication skills related to foreign caregivers were explored. First we piloted in-depth interviews with foreign caregivers. The qualitative analysis software (NVivo 10) was used to analyze the contents of interview. The second step was to develop the multi-language verbal electronic questionnaire (MEQ) in mother tongue language of foreign caregiver by using the results of interview. The third step was to complete quantitative questionnaires about the interaction with foreign caregivers by nurses in the hospital.

### Results

In-depth interviews were conducted with 6 foreign caregivers. 60 foreign caregivers were then interviewed with MEQ, followed by the multi-variant analysis. The respondents regarded they learned the caring skills from the experiences of daily care works. Communication difficulties with health professionals were also mentioned. The cultural knowledge, skills and attitude of the nurses, resources provided by the hospital and the availability of educational training programs all significantly correlated inversely with the level of communication difficulties.

# Conclusions

The foreign caregivers should be considered one of the attributes of successful health promoting hospitals in Taiwan. They play the roles as family members for the elderly and give care as the nurse-aid in the hospital. Actually, many patients were still cared by their foreign caregivers until the terminal stage. Exploring the attitude, knowledge, and skills of foreign caregivers about terminal care is an important step for improving quality of care. It will be the direction of our further research.

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Give an equal right to each child "Our experience of health examination and program for not-Japanese children"

# **OGUTI Sayaka, NAKAMURA Yumi**

# Introduction

We have periodic health examination system from fetus to child until 3 years for all children. After 6 years, schools for Japanese children have periodic medical examinations in law. However,



schools for not-Japanese who live in Japan don't have it. Therefor, there is a difference of health promotion between Japanese and not-Japanese children. We had consult from school for not-Japanese children about their health. We planed that medical examination and educational program to improve the health promotion for them.

# Purpose/Methods

We performed medical examinations including blood, urine sampling and survey about sleep, exercise, contact with media, nutrition, and relation between families to 25 students. After medical examination we planed the health promotion programs include nutrition, physical exercise, and sex education. We also performed dental examination and education. We treated and educated the student who needed individually. Educational staffs were not only medical staff but also nursing college students, physical therapist and dietitian.

# Results

More over 30% of students had obesity. Some children had hyperlipidemia due to un-balanced meals. After health program, many students started to exercise and eat well-balanced meals. Parents hoped to continue the medical examination and program. We were very glad to have another unexpected products. Nursing college students who attended the sex educational program hoped to continue voluntary the educational program for students. Teachers and elder students hoped to help the patients in hospital voluntary.

# **Conclusions**

We confirmed that not-Japanese children had many health problems. And they need not only medical examination but also health promotion programs. This program might be model of collaboration between healthcare providers and organizations in local communities. We have to inform these messages to people and government to get the fund for continuing and expanding these medical examination and program in Japan. We conclude each child has a right to keep own health and get information of it

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# Session P1.4: Responding to stress and improving mental health in somatic patients

Evaluation of the ambience as devices for promoting mental health in primary care

# OLSCHOWSKY Agnes, WETZEL Christine, PINHO Leandro, SCHNEIDER Jacó

# Introduction

Brazilian primary care is oriented by Family Strategy Health (ESF) that is organized for multi-professional teams in the unities of family health, being responsible for a definite number of families, following a territorial and registration logic for the population. It is based on the establishment of a bond with community and on co-responsibility in care, developing actions to promote health, prevention, recovery, rehabilitation of diseases/grievances and maintenance of communitarian health. Articulation between mental health and primary care makes possible a care focusing in the territory, benefiting the de-institutionalizing and social insertion of the person with mental disorders. The ambience concept reminds the thought about how the spaces of work and health care are being organized, and oriented by three axes: comfort, subjective constitutions and resources.

# Purpose/Methods

This work aimed to evaluate the ambience in the context of primary health care. It was done a quantitative research that used the Fourth Generation Evaluation. The data for this study was collected with participatory observation and interview. The people studied were staff, users and relatives related to a Primary Health Care Unity in a Brazilian city.

# Results

Among the aspects involving ambience, the physical structure of the service and the availability of the medication were discussed. In what concerns the structure, it was pointed out that the physical area of the service was small, interfering and not favoring the comfort to work, in a way that assistance activities and meetings were placed in the waiting room and kitchen. Considering medication dispensing, staff's performance in the sense to inform, orient and dispense the medication was evaluated as satisfactory. Users and relatives have indicated the need of available psychiatric medication in the unity's drugstore.

# **Conclusions**

The ambience emerges as a strategy to qualify the care on mental health in the primary attention on health, transcending to subjective spaces and access possibilities to territory's and life's resources.

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Mental health and psychological intervention in a Rehabilitation and Subacute Care Hospital in Italy: one year experience.

# SOMMARUGA Marinella, PAIN Debora, GREMIGNI Paola, REDAELLI Tommaso, PEDRETTI Roberto

# Introduction

Patients with a variety of health disorders benefit from improved treatment where psychologists are part of hospital medical staff. Unfortunately, too often patients fail to receive psychological services that help them manage their disorders. Psychologists employed in health care settings work directly with patients, conducting mental assessment, diagnosing mental disorders, and performing psychological interventions. Up today the empirical data regarding the state of the art of psychological intervention in the hospital setting are still scarce.

# Purpose/Methods

The aim of this retrospective analysis was to describe one year experience with mental health assessment and psychological intervention in a cardiac, neurological and pneumological Rehabilitation and Subacute Care Hospital in Italy. We conducted assessments through clinical interviews and personality tests. The intervention consisted of brief psychotherapy with patients and caregiver, individually or in groups, mainly focusing on mood disturbances but addressing also psychoeducational themes such as stress reduction, smoking withdrawal, and avoidance of unhealthy behaviours.

# Results

Seven hundred eighty-five patients (57% males, mean age 67±13) of 2485 (31,6%) were referred to psychologists; of them 665 (84,7%) were clinically interviewed and the rest completed batteries of tests. The main mental health problems were anxiety (23%) and depression (14%). The intervention consisted of psychotherapy sessions with patients (1754) and with care-givers (490), and psychoeducational group sessions (1144 health education, 838 relaxation). At discharge there was an improvement in mood disturbance, with a reduction in both anxiety (11%) and depression (8%).

# Conclusions

Our data show the need to assess anxiety and depression, as main mental health problems in chronic diseases, and the efficacy of a brief psychological intervention to reduce the mood disturbance in hospital. It is necessary to accurately select patients who need psychological care and a real consensus about how to organize psychology services in hospital and what patients should be referred is recommended.

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Biographical "Work" Experience Evolved with the Help of the Art

# Therapy in the Cases of the Men Who Had Suffered a Spinal Cord Injury "

# **GAVELIENE Larisa**

# Introduction

80 percent of the patients who suffer a spinal cord injury are men. The majority of them are active, social persons whose aim is to return to the normal life. The traditional male role in the society prevent men from the help search. The biographical perspective of the men who had suffered a spinal cord injury was analysed as an event rearranging and restructuring their whole life and changing their identity. The social work and team work in the rehabilitation institutions were analysed.

# Purpose/Methods

Analysis of the biographical narrative. The biographical narrative was analysed with the help of the art therapy. The art therapy was looked at as an empowering measure. The biographies of the men who had suffered a spinal cord injury revealed the strategies employed when overcoming the difficulties, their psychological and social problems. The efficiency of the art therapy employing the biographical "work" as a tool was analysed.

# Results

The spinal cord injury has an impact on the person as well as all other his life aspects including his social and family relations, economic welfare, and professional aspects. In our case, the collapse of the standard male biography in the background of the trauma was analysed. We tried to perceive the different biographical trajectories and at the same time the different ways of the identity construction. So, we tried to show that there are other stages in the survival of the trauma.

# Conclusions

The biographical work applied in the social work helped to understand the life histories of the patients, their present situations. With the help of the reflexion expressions the future could be constructed. This research opens further possibilities. The results of the research are the initial instrument in the further biographical "work" applied with the help of the art therapy in the cases of the men who have suffered a spinal cord injury.

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The associated factors in depression and psychophysical adaptation among patients with Hansen's disease in Lo-Sheng Sanatorium

WU Li-Ling, LIN Jacob



# Introduction

Hansen's disease (HD) is an ancient deforming disease caused by Mycobacterium leprae. Before effective multi-drug treatment in 1980's, their clinical features made stigma of this diagnosis. In Taiwan, Lo-Sheng Sanatorium built in 1930 is the only public shelter for HD patients. The associated factors in depression and psychophysical adaptation among patients with Hansen's disease in Taiwan are not well known.

# Purpose/Methods

We have enrolled 111 HD patients from March to August in 2013. We assessed their psychological symptoms with 5-item Brief Symptom Rating Scale (BSRS-5), Health Perception Health Scale (HPHS) and Geriatric Depression Scale (GDS). This research was to investigate the associated factors in depression, health perception and psychophysical adaptation among patients with Hansen's disease in Lo-Sheng Sanatorium.

# Results

The mean age was 78.77 year-old (SD=8.09). In health perception, 62.2% of subjects felt stable, 37.8% of them had no care necessity, 22.5% of them needed help in daily nursing care, 18% of them needed medical care and 21.6% of them needed both daily nursing and medical care. The scale of GDS ranged from 0 to 14, and the average was 3.85. Ninety-first people (86.7%) had less than 5 points. There was no relationship between depression and basic characters (table 1). The scale of BSRS-5 ranged from 0 to 15, and the average was 3.20. Eighty-six people (77.5%) had less than 5 points (table 2 and 3). Psychophysical adaptation had no significant relationship in age, marriage, care need and health perception, but had negative association with family interaction (f=7.854, p=0.006).

# Conclusions

Half of subjects felt stable in health perception. Nursing care was prior in daily care then medical care. Depressive status was among moderate to low, and was no significant relationship with basic characters. Psychophysical status was stable in almost people and better in patients with good family interaction. However, 16.2% of participants had suicide attempts. Sleep disturbance was higher among them, but the association needs further studies.

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With goalkeeper concept-To construct a systemic Suicide Prevention Care processes in internal medical ward of general hospital

# **WU Chia-Wei**

# Introduction

Suicide prevention is an important topic of contemporary public health and mental health work. Major depressive disorder, chronic diseases, the elderly are the most important causes of suicide. With goalkeeper concept—ask, answer, and referrals, to care patient with suicide attempts, eliminating the tragedy. Hospital medical ward patient suicides have occurred, it is important to construct a systematic process for suicide prevention care.

# Purpose/Methods

August 2012 used interdisciplinary professional cooperation, including physicians, nurses, social workers, psychiatrists, developed mental health screening tables, the risk for depression screening and treatment process, health education resources and training program for the nursing staff to improve medical care for inpatient mental integrity.

# Results

Results after the implementation of mental health screening nurses perform a full rate of 100%; 7.5% after screening those with mild depression; referral rate of 100%, inpatient mental integrity rate of 100%; nurses depression cognitive score upgrade from the 60.5 points and 90.5 points; from 2012 so far 0% incidence of patient suicide.

# Conclusions

Depression is a potential suicide risk factor group, along with the times, becoming the diseases of civilization can not be ignored, consistent with acute clinical care to identify the use of assessment tools that allow health care professionals to have consistency, specific evaluation, to early detection function, combined with multi-disciplinary teamwork, timely intervention to solve patient problems, reduce the burden on individuals, families and society.

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Promotion Outcomes of the Mental Health in the Institutionalized Elders – A Case Study of the Beitou District (Taipei City) Program

LIN Hui-Ping, YANG Sheng-Ying, LIANG Chu-Hsiang, LIAO Hsiu-Yuan, HSU Shu-Chin, LEE Hui-Chen, HSIEH Chia-Jung

# Introduction

This project integrated the public and private sectors, hospitals, social welfare institutions, schools, long-term care and nursing facilities and community development associations of Beitou District in 2012 for the program of "Promoting Mental Health in

Institutionalized Elders through Laughter and Relaxation". A total of 30 institution employees were become leadership and promoting the mental health for institutionalized elders.

# Purpose/Methods

The study selected residents (N=61) from five long-term nursing care institutions in Beitou, Taipei, ROC. and conducted the program once a week (50 min. per session) for a period of 12 weeks. Measurement instruments were used the emotional facial scale and the geriatric depression scale. Descriptive and deductive statistical analyses were conducted by using the SPSS 20.0. The purpose of this study was to explore the effect of preand post-activity in emotional experiences and depression mood for institutionalized elders.

# Results

Analyses found a significant statistical difference in the emotional experience (t= 5.89, p<.001) and depression mood (t= 5.15, p<.001) of the institutionalized elders after the intervention program. The findings showed that the program of "Promoting Mental Health in Institutionalized Elders through Laughter and Relaxation" could promote the positive emotional experiences for participants and alleviate their sense of depression.

# **Conclusions**

The study result has founded the program of "Promoting Mental Health in Institutionalized Elders through Laughter and Relaxation" that effectively elevated the mental health of institutionalized elders and also equipped the institution employees with the leadership skills. The model may serve as reference for making policy and applying for mental health promotion.

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The Association of Depressive
Tendency in Newly Recruited Males
for Military Service with Self
Perceived Health and Health Related
Behaviors at a Frontier Island

# YANG Pei-Yu, LIN I-Ching

# Introduction

Performing a newly assigned mission in an unfamiliar environment usually results in apprehension, anxiety and depression. The aim of this study was to determine the association of depressive tendency with self-perceived health and health related behaviors in a group of 859 newly recruited males assigned to a remote frontier island for military purposes.

# Purpose/Methods

We used the questionnaire of 2001 National Health Interview Survey in Taiwan and the Taiwanese Depression Questionnaire. The questionnaire was administered to the newly recruited males within one week when they arrived at the island between September 2008 and January 2011. There were 859 questionnaires administered, and 32 were excluded from analysis because of incomplete items critical for this research. Data were analyzed using SPSS version 15.0 software. Logistic regression was used to predict the risk factors of depressive tendency.

## Results

The mean age of the new recruits was 21.9±2.6 years. Twenty-one percent of the respondents reported apprehensive for a lack of appropriate career planning. Fifteen percent of the respondents had depressive tendency. Binary logistic regression analysis revealed that those who perceived themselves as being unhealthy (OR=3.61; 95%Cl=1.84-7.09), had a habit of betel nut chewing (OR=4.74; 95%Cl=2.75-8.17), lacked physical exercise (OR=2.31; 95%Cl=1.49-3.59), and who had physical discomfort but without seeking medical treatment (OR=1.84; 95%Cl=1.15-2.95) were more likely to have depressive tendency.

# Conclusions

The prevalence of depressive tendency in the newly recruited males serving at the island tended to be higher than in those who served at mainland military sites. There was significant association of depressive tendency with self perceived health and several health related behaviors. Authorities in charge of newly recruited males should provide appropriate assistance, including education, advocacy, and promoting healthy behavior to maintain the recruit's psychological health.

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# Screening emotional distress for older patients with chronic illnesses in a health promotion hospital

# FANG Chun-Kai, HU Jen-Chieh

# Introduction

Emotional distress or major depressive disorder among older patients was important issues in hospitals. In Taiwan, the older group was the highest suicide rate among all age groups. How to find the target older patients in the hospitals should be considered in clinical practice.

# Purpose/Methods

The clinical project was practiced on Mackay Memorial Hospital and supported by New Taipei City Government from June to November, 2013. The instruments included the Distress Thermometer (DT) for over all screen and the Patient Health Questionnaire -9 (PHQ-9) to screen depression if DT  $\geq$  5. Case



management was provided if DT $\geq$  5 and psychiatric service was consulted if PHQ-9  $\geq$  14.

# Results

There were 3024 older patients screened, including 2595 outpatients and 429 inpatients. In the outpatient group, 13.17% suffered from distress and 0.77% suffered from depression; in the inpatient group, 26.57% suffered from distress and 3.72% suffered from depression. 528 older patients were cared by telephone interview. There were 36 patients received case management, and 22 among them were transferred for psychiatric services.

# **Conclusions**

Even older patients went to the outpatient clinics, the percentage of emotional distress was low; however, older patients who needed hospitalization had high morbidity of emotional distress. Regular emotional distress screen for older inpatients should be considered in the health promotion hospital.

### Comments

The project was promoted by the Department of Health in New Taipei City. As a health promotion hospital, it is meaningful to find older patients with emotional distress and to provide appropriate services.

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# Session P1.5: Improving the agefriendliness of healthcare services

Long-term Care Needs and Service
Connections Analysis for the Disabled
in a Remote Area in Taiwan

# CHANG Jia-Ping, CHANG Mei-Jen, CHIU Ge-Lin, CHEN Li-Fang

# Introduction

Longci township with 24.4% elderly population is one of the remote districts with extremely serious aging population in Taiwan. Because of the moving out of the working-age population, the proportion of elderly from the residents who "actually live in Longci" is even higher. The potential demand for long-term care is especially escalating in elderly and therefore the long-term care demands will be much higher than estimation. However, there was lack of the on-the-spot investigation of the long-term care needs.

# Purpose/Methods

The purpose of the study was to investigate the long-term care needs for disabled population in Longci township in Taiwan.

According to the household registration data in July 2012, 1003 senior citizens age above 65 and 79 defectives age between 50 and 64 were included. Via on-the-spot home visit, the long-term care evaluation specialists evaluated the needs of long-term care by measuring the activities of the daily living (ADLs) scales and the instrumental activities of daily living (IADLs) scales.

### Results

Excluding 19 deceased and 185 people who did not live in but still registered in Longci , we completed 878 cases evaluation. In total, 137 inhabitants (12.9%) had the needs of long-term care services, including 122 senior citizens and 15 defectives. Most of them (78 cases, 57%) were mild disable. Except 38 disabilities cared by immigrant caregivers (12) or their families (26), we provided long-term care resources to 99 residents with disabilities. Home nursing was the most needed.

# Conclusions

In our study, we investigated the long-term care needs of the citizens in Longci township and provided long-term care services to the disable. However, the payment might be a burden to the people whom really need the long-term care service.

### Comments

It was not easy to convey medical information and allocate resources to remote areas. In addition, we found that the majority of the elderly in Longci township are relatively healthy. Therefore, it is also an important issue to promote health of these senior citizens.

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Association between repeated

utilization and health status in preventive service for elder

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# Introduction

Health examination for elder aged above 65 annually has been provided as nationwide preventive service since 1996 in Taiwan. From our previous findings, integrated preventive services in medical center can detect extra 28.5% chronic conditions for elder and female has more comorbid chronic diseases than male above 65. The repeated utilization are rare discuss for service episode and the trend of regular examination are interesting. Furthermore, association between the utilization and health status could be clarified.

# Purpose/Methods

The elders aged above 65 who engaged in the nationwide health examination program between 2006 and 2012 in the Department

of Family Medicine, Far Eastern Memorial Hospital was included. Demographic characteristics, health behavior and biochemical data for chronic disease were collected, attendance rate and repeated utilization was calculated for the trend of preventive service. Chi-square test and student's t-test was used to examine the differences between the repeated times of utilization.

### Results

Total 18982 elders were recruited in the integrated preventive services and attendance rate was significantly increased from 6.5% to 16.6% between 2006 and 2012. The repeated utilization from 1-7 times are 66.4%, 17.7%, 7.8%, 3.9%, 2.1%, 1.3% and 0.9%. Repeated utilization was higher in male and elder who accept more times of health service are exercise more and have less behavior on cigarette, alcohol and betel nut use. Higher utilization can detect more preclinical stage of diabetes and hyperlipidemia.

# Conclusions

The study demonstrates that elder who regular participate preventive service are related to health behavior, moreover, provide more chance to early detect the preclinical chronic diseases. The low annual utilization rate may influence by the biennial integrated cancer screening strategy for colon, breast and oral or triennial cancer screening strategy for cervical. Clarify the utilization willing and chronic conditions can also improve follow-up care in integrated geriatric medicine with the continuous service.

# Comments

Although increase and maintain individual's health is the objective of preventive services which execute annual for elder in the last two decades, the usage rate was only around 60 percent among age over 65 years in Taiwan. As 86% of the elder have been diagnosis at least one chronic disease, 66% for 2 comorbid and 46% for 3 comorbid chronic diseases, increase the repeated utilization can used to estimate the progression of a chronic disease with multi-state properties.

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# How to build an aged-friendly hospital- Experience of Taipei hospital

# YANG Shih-Hsien, CHANG Hisao-Ting, LI Wen-Hua, LIN Shoei-Loong

# Introduction

The aged population in Taiwan has taken 11.2% of total population and they are the most customers in the hospital. In order to ensure the aged could be cared safely in the hospital, we decide to build an aged-friendly hospital through the hardware and software to provide the aged a safer and healthier environment.

# Purpose/Methods

The project was executed from November 2011 to May 2012 by the hospital health promotion committee which sets up the age-friendly health care group to carry out the following strategies: (1)participation of the medical professional team; (2) in the aged' point of view; (3) improving the physical environment of the hospital; (4) encouraging the aged to participate in social services; (5) caring the aged in the community.

# Results

In order to build a closer, safer, more friendly environment field for the aged, the Age-friendly health care group takes the consideration of the aged' needs and accomplish following policies: (1) set geriatrics clinic by merging all fields of staffs who are certified with caring the aged; (2) let our employees have more empathy to the aged by the activity of experience their life and learn how to easily communicate with the aged; (3) change our hospital to a barrier-free environment by good illumination, anti-slip floors and handrails, and power-driven beds; (4) encourage the aged to join our hospital volunteer club and provide them more interaction with the society; (5) deal with integrated screening and care the lonely aged in the community.

# Conclusions

The aged population in Taiwan increases year by year, so it is important to spread the concept of the aged-friendly hospital. Through the professional medical team and improvement of physical environment, we can help the aged to achieve physical wellbeing. On the other hand, psychological wellbeing can be achieved by understanding what the aged need through the aged' eye and encouraging the aged to participate in social activities.

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# The Emergency Department at a University Hospital as a possible space for health promotion of elderly people

# **ALVES Renata, SILVEIRA Esalba**

# Introduction

In Brazil, the number of seniors increases rapidly insofar as life expectancy extends and mortality of population reduces, coupled with improved sanitation conditions and technological improvements in the health sector. This topic is essential to emergency services, whereas the needs in health, such as living conditions, autonomy, and bonds between professional and users, as well as access to health technologies implying on work processes and requiring singled answers to the elderly.



# Purpose/Methods

So, this research is qualitative and descriptive aiming at knowing seniors health needs, plus the work processes features at a University Hospital in Southern Brazil. People involved at the study were relatives/care givers of elderly and health workers. Also, data collection was carried out by semi-structured interviews and focus groups using the technique "talking-maps"; the information analysis was by Content Analysis; this study was approved by the Ethics in Research Committee of the institution.

# Results

The findings have showed a large gap between the working conditions and the provision of health needs for elderly people, then added the importance of affection in the family. Moreover, it pointed out professional training for teamwork and actions among intersectoral services as essential to health care for elderly, as well as the challenges to be overcome as lack of privacy and overcrowding places at the hospitals.

# **Conclusions**

In conclusion, the emergency care may be a space for health promotion at the hospital, demanding a job setting that meets health needs, recognizing the social determinants of health / illness and ways of life, overcoming the rigid hierarchy in the current shape of healthcare, also acting in integrated sectors seeking accountability, care, autonomy and health promotion of seniors. Summing up, these findings have helped to implementing innovative actions.

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Surgery for geriatric orthopedic patients. Fast enough for all of them?

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# Introduction

Fragility hip fracture is a disabling condition for patients, with a high social-impact disability as well. It affects elderly population identified by a primary diversity such as age; elderly patients often suffer severe comorbidities and have a high death risk and residual disability. In patients older than 75, mortality, morbility and hospitalization decrease if the time elapsing between hospital admission and surgery is shorter than 48 hours; that's why it's important to fix fractures and perform fast physical rehabilitation.

# Purpose/Methods

Clinical care pathway for these patients was analyzed using a particular equity impact assesment tool called Equality Impact Assessment. Analysing the features of the population involved, many inequities emerged; among them, a longer time elapsing between fracture and surgery, depending on the day when hip fracture occurred. If it occurred from Monday to Thursday, waiting times for surgery were limited to 48 hours; if the fracture occurred in other days, waiting times became longer, due to organizational and logistical reasons

# Results

As a consequence, it was decided to revise work plans and allocate an operating room devoted to geriatric orthopedic patients, in order to give them all the same treatment opportunities. At the beginning, waiting time between facture and clinical intervention was restrained to 48 hours only in the 55% of cases, but after a systematic planning of operating rooms dedicated to geriatric orthopedic patients during the week end the percentage increased up to 90%.

# Conclusions

As far as equity of the results is concerned, the evaluation of a well established hospital clinical pathway led to an increased awareness by health staff and an optimization of the human and logistical resources which were employed. This allowed an improved outcome for geriatric orthopedic patients, pursuing the principle of equity and respect for differences.

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The social worker in sub acute care with older patients: One year experience

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# Introduction

Subacute care is a transition between acute care in a hospital and discharge back to the patient's home; the care of these patients is complex, due to the increase of population age and for the health chronic in older age. In sub acute settings social workers frequently devote the majority of their time to discharge planning , including arranging any needed home services or placement in a lower level of care once the patient's sub acute plan has been completed.

# Purpose/Methods

The aim of this study was to identify the better discharge planning, after evaluation of patients and care-givers needs in older patients admitted in a Sub Acute Care Hospital. The patients selected to the social workers (n°2) in one year were 561/1192 patients (47%), 240 males and 321 females (mean age  $79.4\pm\,$ ) with cardiac disorders (154, 27.4%),vascular disorders (98, 17.4%), neurological disorders (202, 36.1.%) and other (107, 19.1%).

# Results

Social consultation with patients (median 3), telephone consultations with social health services (median 4) and consultations with patients' care-givers (median 6) were performed in the month of admission. The discharge planning identified was: 1) back home arranging any needed home services (258 patients , 45.9%); 2) nursing home (107, 19,7%), 3) rehabilitation facilities (77,13.7%), 4) post acute wards (21, 3.6%); 5) acute care hospital (58, 10.2%); 6) hospice (8,1,3%). Thirty two patients (5,6%) died before discharge.

# Conclusions

1)these data show the need of organizing weekly meetings with patients and care-givers aimed to give informations on practices and services.2)the analysis of these data shows that most of patients were discharged to home where the family in Italy represents the main care resource together with health services. This research underlines as the social service's role of linking the hospital and the social health services system could be very important to reduce the frequent admissions in hospital.

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# The nursing case management in assisting the elderly and frail health literacy

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# Introduction

As part of the HPH network, especially in this time of crisis, invest in chronic diseases and prevention is ethically right, as the right to health is universally recognized , but it is also " convenient " in order to build a model of society more sustainable with the person being cared for at the center of the process. We need health literacy pathways towards the family to optimize the quality of care of the frail elderly.

# Purpose/Methods

Improving the welfare approach; promote collaboration between practitioners and patients; to improve the quality of life of frail elderly patients and their families; reduce comorbidities and hospitalizations. In this regard, we have identified an experienced operator to take charge of the whole person hospitalized during discharge. The operator, called Nurse Continual Assistance (NCA),

has the task of defining the criteria for selecting patients fragile and identify its care needs in collaboration with other actors involved in assisting in and out of hospital.

# Results

The proactive approach, proper planning and empowerment of the caregiver and the family bring a better quality of life of the assisted and reduce the likelihood of hospitalization and/or duration of hospitalization itself. The quality of a person's life "fragile" depends on the degree of compliance to treatment and care plan. Following this strategy of care, we found a significant reduction in the number of patients who undergo rehospitalization within 30 days of discharge.

# Conclusions

The gradual increase in the average age has led to a greater need for attention to the needs of the elderly "fragile" and their families. The actors involved are professionals and stakeholders that in relation to their areas of expertise contribute to the support of care of the frail elderly and their families, with networking and stable alliances.

# Comments

Taking charge of the assisted by Nurse of continuity of care, must be conducted according to the methodology of case management, through the stimulation of empowerment of the care-giver and the family that revolve around the person "fragile" . This method of approach involves the output from the logic of the "walls" of the professional competence and promotes the deployment of a network of interprofessional collaboration targeted to the welfare of the citizen.

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Promoting a supportive environment for older patients with medical seeking: A study of mobile service from volunteers

# CHEN Hsiang Yi, CHEN Shiu Mei, CHEN Ging-Song, PENG Jung-En

# Introduction

Older patients often find increasing difficulty in medical seeking due to declined physique and disability. To assist the older patients with easy medical seeking, our hospital has shortened the medical seeking process for older patients from 2011. We arrange one shift of mobile volunteer team during the daily outpatient time The content of mobile services includes: initiative in care and company of older patients to complete the medical seeking process (registration, cashier and examination), providing borrowing series of assistive devices.



# Purpose/Methods

The purpose of the study aims to understand the mobile services from outpatient volunteers offered to shorten the medical seeking process for older patients and the benefits to helping older patients with medical treatment. The study has collected and analyzed the number of older patients during mobile services from outpatient volunteers between 2011 and 2013, the outpatient satisfaction to volunteer services and self-achievement evaluation scale filled out by outpatient volunteers.

# Results

The number of mobile services for older patients increased from 9,144 in 2011 to 12,133 in 2013 with a growth rate of 33%. The outpatient satisfaction for volunteer services increased from 85.6% to 87.4% while the self-achievement for outpatient volunteer services increased from 6 points to 8 points. Some volunteers even mentioned that "Providing services to older patients is similar to helping families. I have increased a sense of responsibility for services as well as learning more about patience."

## Conclusions

The study observes the benefits of volunteers helping older patients with smooth medical seeking from the number of mobile volunteer service, patient service satisfaction and increase in volunteer self-service evaluation. The hospital can provide cozy medical environment to medical seekers through the service from the volunteers while the mobile services from the volunteers will provide care and comfort to the seniors like their family, reducing unnecessary risks such as falling, getting lost of confusion that cause delay in medical seeking.

# Comments

Volunteer service is diverse and rich. The future volunteers can step into the neighboring communities of the hospital to help pickup up and company of the older patients between the hospital and home. The volunteers could even visit the chronic older patients taking long-term prescription with care and greeting, thereby to promote the health aging in place. This is the orientation of our future development.

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# Improving the Quality of Treatment for the Elderly through an Integrated Outpatient Service

# **CHEN Jui-Fang**

# Introduction

The Tainan Municipal Hospital focus to provide consistent and caring medical services to the elderly with chronic illness by leveraging well-managed internal resources and information sharing.

# Purpose/Methods

1.The target group are patients of this hospital, age 65 and above, with multiple chronic illness and treatment record from more than two departments each dated between April and December, 2012. 2.Two approaches to the outpatient service are provided based on patient's "doctor-preference" and the type of medical treatment needed and are also facilitated by the consolidation of patient's data.

# Results

1.Comparing to the period of April to December, 2011, on average, a -7.23% reduction in "monthly outpatient service cost per patient" is observed after launching an integrated outpatient service. 2.Comparing to the period of April to December, 2011, on average, a -16.23% reduction in "monthly outpatient service frequency per patient" is observed after launching an integrated outpatient service. 3.Comparing to the period of April to December, 2011, on average, a -0.29582 reduction in "monthly prescription count per patient" is observed after launching an integrated outpatient service.

# Conclusions

In summary, the most significant benefit of an Integrated Outpatient Services is the overall cost saving and the prevention of wasting valuable medical resources. An Integrated Outpatient Service is also time-saving and more convenient for the elderly with chronic illness.

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# Through providing the active medicine service increases the medical proximity.

# CHEN Kuan Yueh, YOU Yi Cyun, LI Yun Lu, HUNG Ying Chun, WANG Yu Jing, TU Shih-Te

# Introduction

In nowadays, the society is getting old, and the elders are usually see doctors by themselves. The percentage of patient's age above 60 since 1999 to now is 29%, 30%, 45% and 47%. In the rush hours, we hope that we can satisfy the more patients' needs by providing the active medicine service and care by the pharmacists.

# Purpose/Methods

From 102.07 to 102.10, 09:00 to 12:00, Monday to Friday, pharmacists who provide the active medicine service, help patients what they need in the waiting area. The services include: medicine consulting, medicine collect helping, Register helping,

and tour guide... etc. Besides, they also report the internal about the pharmacy situation, feedback and advices.

### Results

We service 2170 people during the research. In these services, the most percentage is medicine collect helping which about 63.6%, and the next is medicine consulting, 14.0%. Although we have individual medicine consulting room, the active pharmacists can provide their services quickly. The advice in the research, the internal process is 72%, environment 17% and the other is 11%. In the patients' review, the touchable services is the most, which is 56%, the smooth medicine collect process is 31%, and the other is 13%.

# **Conclusions**

Providing active medicine services not only can reduce patients' anxious but also cut the waiting time. From inside to outside, take the patient oriented can draw the distance between patients and hospitals closer and closer. To the internal, pharmacists can be more empathic, and report the questions at front desk and waiting area more actively by these services who can make the internal solve the question in time, increase flexibility, make the process smoothly, and increase the total working attitude and efficient.

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# Health promotion and surgical risk preventive services in the elderly patients

# CHUANG Mao-Te, LO Chia-Lun, HU Yan-Han, CHEN Mei-Tsu

# Introduction

As living standards and awareness of individual rights improve, patients' demands have become higher. Especially, for elderly patients undergoing surgeries, due to the high risk of surgeries, it is necessary to evaluate their physiological conditions precisely and offer them sufficient nutrition before performing surgeries, in order to avoid infections or complications after surgeries. Therefore, the purpose of this study is to achieve the goal of facilitating recovery through proper diets for elderly patients before they receive surgeries.

# Purpose/Methods

This study collected the data from a total of 200 elderly patients who had received surgeries in the Surgical Department of the case hospital during 2005~2009. The features of the high-risk elderly patients having complications after their surgeries were found by combining supervised learning with the possum scale. Next, 30 elderly patients qualified as high-risk went through the counseling with a dietician before receiving surgeries to

supplement nutrition. Then, their recovery conditions after their surgeries were observed.

### Results

The purpose of offering proper diets was to facilitate tissue repair and supplement nutrition needed to recover with vitamin A. Any food contains rich vitamin A, (ex: liver, carotenoid or a large amount of milk protein) were provided to the patients, with the purposes of preventing infections and oxidation, and recuperation. After actually observing the patients' recovering conditions after their surgeries, it was found that none of them had other diseases or extended hospitalization and they all recovered very well.

# **Conclusions**

Although controlling the risk factors which may cause complications after surgeries of elderly patients helps to reduce chances of failed surgeries, it is in fact a passive method. The only way to actively help patients to recover efficiently to achieve the goal of facilitating health is to improve patients' health conditions and resistance.

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# The Effectiveness of Integrated Health Care Provided by Outpatient Comprehensive Geriatric Assessment: A Open-label, Placebo-controlled trial

# **HUANG Chi-Hsien, LIN Pei-Ching**

# Introduction

According to the challenge of rapid aging in Taiwan, multiple comorbidities, polypharmacy, functional decline in the elderly are complex conditions without delicate consideration and appropriate control. In addition, geriatric syndromes are groups of unique features of common health conditions in the elderly associated with poor outcomes and worse prognosis. A multidimensional, interdisciplinary diagnostic and interventional instrument, comprehensive geriatric assessment (CGA), is mandatory for the elderly to investigate the medical, psychosocial and functional capabilities and limitations.

# Purpose/Methods

The trial was designed to determine effectiveness of integrated health care through CGA conducted in out-patient clinics of a regional hospital. Community-dwelling participants must meet at least one of the criteria: functional declines, dementia, depression, falls, multiple comorbidities (more than five chronic diseases), visiting more than three different physicians in recent 6 months, or advanced age (over 80). Patients in experimental group (n=15) received comprehensive care in department of



family medicine, whereas those in control group (n=30) received usual care.

# Results

After three months, comprehensive care reduced frequency (p=0.028) and categories (p=0.001) of medical visits in experimental group. The decrease of categories of medical visits was observed between comparison of experimental group and control group at three month follow-up (p<0.001). No significant changes were found among items of drug, classes of drug, depression scores, MMSE scores, self-care ability (including ADLs and IADLs), quality of life and nutritional status. Age, gender or education levels showed no association with all outcomes.

# Conclusions

The elderly with multiple comorbidities, mental illness, functional disabilities benefit from comprehensive care by reducing frequency and categories of medical visits. Long term follow-up and large-scale clinical trials should be conducted in the future to confirm the effectiveness of integrated health care.

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# Scenario-based Treatment to help Elder patients TKA operation early Rehabilitation

# JIANG Shu-Jiuan, CHUANG Jia-Chi, CHUANG Yu-Ching

# Introduction

Statistics said prevalence of Arthritis for elders over 70 is 44%. Most of the patients suffer the pain and inconvenience in fear for the surgery itself,woundcut pain and unrecovery. Adapting scenario-based treatment helps elder's mental status of accepting surgery, lessen the worries of the patient and their families. Providing individual patient instructions and nursing care based on elder's life and pathological features, prepares the patients of coming situations, to ease their anxiety for successful surgery and rehabilitation.

# Purpose/Methods

With hospital's TKR clinical pathway, setting up TKR whole process flow, performing before-surgery patient instructions, using scenario-based medical equipment to simulate preparation, understand surgery process and rehabilitation.

# Results

Total 168 patients with TKA, scenario-based TKR clinical pathway execution rate 72%, on bed execution rate of CPM 91%, ambulation three days after surgery 82%; compared to cases without scenario-based treatment, on-bed execution rate of CPM is only 70%, 21% higher. Ambulation rate 60%, 22% higher.

# Conclusions

Systematic scenario-based before-surgery nursing cares provide the patients with messages of before and post surgery, feelings body might go through during and after the surgery. Using techniques of relaxation, comfortable activities of affected limbs and attention distraction to ease physical discomfort, perform early full articulus exercise, effectively improve capability of early recovery, lessen anxiety and self management.

# Comments

Clinical scenario-based simulation design implemented with our hospital's TKR clinical pathway, cooperation of professionals, allowing patients to ease the pain and regain the mobility of knee joint, gradually increasing physiological activities and improving body mobility. This idea and spirit can be compatible with other surgery-related matters. Looking forward to developing more items and forming the integration benchmark of nursing.

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# The strategy of menopausal women's health promotion

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# Introduction

Taiwan is moving toward to a society with more aging population; women whom are over fifty years old is raising from 1.7 million(1992) to 4.7 million(2012). The hospital has assisted the community to establish a support group of menopausal women with over 400 members. By full range of the training system combined with resources from the community, the group not only provides consultation but also encourages experience sharing and members would be able to realize their ability and self-esteem from this empowerment program.

# Purpose/Methods

The expectation is to fill up the gap from body, mind and soul in different stages of those women who are being through their menopause. There are four steps in the volunteer training program of the menopausal support group. First, to assists the community selects qualify candidates through interviews; second, to provides orientations for volunteers; third, to set up the training system with job training, demonstrations in practice, and group discussions; finally, to evaluate performances every 6 months for improvement.

# Results

Under the strategy of health promotion for menopausal women, the support group had gathered over 400 members, and had provided face-to-face consultations with 2,780 hours during 1999 to 2012. Other than spread out the knowledge and experience

among those menopausal women who joined the support group, there were 55 seminars had arranged in total which related to issues of menopause and osteoporosis. On average, there was one seminar per month. Meanwhile, the satisfaction rates were over 90% to the education environment, service hours and quality, and the information provided by volunteers.

# **Conclusions**

It is an important subject of health care around the world to maintain the quality of life of menopausal women. The total health care system for menopausal women that help to improve menopausal women in physical discomfort, provide comfort and care of psychological. Even to be taught how to use a positive attitude to plan life by non-governmental organizations. We'll continue to care menopausal women, and help them to enhance a healthy, happy life.

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# The Integrated Geriatric Clinic Based on Patient Centered

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# Introduction

The Number of elders in Taiwan will reach 14 % in 2017 . They have many problems such as impaired cognition function, delirium, depression, malnutrition and polypharmacy. The Geriatric clinic in Taiwan now is not enough and only one field doctor .The demand of the caregiver cannot be satisfied. Our hospital set up an integrated Geriatric clinic based on patient centered since June 2012. We want to set a pilot integrated care model and evaluate its care quality.

# Purpose/Methods

1.One stop service: We have neurologist, Psychiatric,Family doctor.,Traditional Chinese herb doctors ,Social worker, nurse practitioner, rehabilitation doctor see our patients at the same time and discuss the care plan. 2.Care management Specialist who take case of elders and family demand with system technology information support. 3.Standard Evaluation forms: We use multiple aspects of Geriatric evaluation forms such as CGA(comprehensive geriatric assessment ) 4.Elderly assistive devices education room for caregivers

# Results

From July 2012 to Nov 2013, total integrated Disease declaration rate is 100%, our total patients numbers are 8605. we also set up a unique integrated care plan for each patient. Average age is 81 years old. Their Mean Comprehensive geriatric assessments are as follows: MMSE:24; Geriatric depression scale:4.; MNA-SF 12; ADL 86; IADL 5. TOP 3 problems are balance, dental problems

and Insomnia. After Multi-displicinary team intervention , their CGA score all increase . The Satisfaction score is 92 %

### Conclusions

How to develop an integrated care model for elders is now an important problem in Taiwan. Our hospital set up a pilot geriatric care model based on patient centered . Health aging is our goal .

# Comments

A comprehensive geritric clinic is very importment to the elders.

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# An Integrated Medical Care Workflow among Different Systems Leads to a Better Disease Management

# LIAO Shang-Chih, LEE I-Nong, HUANG Ya-Fen, WANG Pei-Ming

# Introduction

A traditional nursing home for severely disabled patients usually cooperates with a general hospital for patient emergency treatment. However, this type of passive support results in varying conditions for disease management. Therefore, a more sophisticated integration of medical care workflow for two distinct systems is needed for more efficient care.

# Purpose/Methods

A general hospital established a workflow to support surrounding communities with specific purpose, depending on the demands for medical care. In the nursing home selected for this study, 68 severely disabled patients are all at the level of 0 determined by the Activities of Daily Living Scale (ADL). Out of 68 patients, there are 56 in vegetative state. In addition, most of the patients have skin, dental, nutrition, and medicine misuse problems. An integrated medical care workflow was set to satisfy patient needs.

# Results

The monthly rate of unexpected acute hospitalization (persons/68/month) was observed for evaluating the new integrated workflow. The average rate had decreased from 7.15 to 2.60, and variation within the months of study also decreased from 4.32 to 2.00. After the integrated workflow was implemented in the nursing home, the monthly rate of unexpected acute hospitalization has improved significantly (p=0.038).

# Conclusions

Patients in vegetative state were usually treated with passive manner in nursing homes, leading to a high variation in health conditions, followed by high cost in medical care. An



administered and integrated workflow set between different medical care systems is workable for better disease management. The parameters and mechanisms of such integrated models are worth to further analysis.

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# Geriatric Health Promotion and Integrated Care in Taipei

# **SHIEH Ying-Hua**

# Introduction

The elderly population in Taiwan has been raised over 11%. The prevalence of multiple chronic diseases has increased annually. Application of integrated care can improve the quality of medical service. The recent studies, more than half of the elderly population in Taiwan have three or more chronic diseases, and 27% of the elderly takes more than five types of drugs regularly. Elderly population accounts for 30 % of National Health Insurance (NHI) medical expenses and 20% of total household health expenditure

# Purpose/Methods

Patients targeted for integrated care are defined as: patients that had visited out-patient department throughout Jan,2010 to Jan,2013, those who had visited Wan Fang Hospital outpatient department for more than 50% of their total out-patient department visits. In practice, we established health promotion& integrated care OPD in Family Medicine Department, and restricted the number of clinical patients to twenty five. Comprehensive geriatric assessment (CGA) were completed by the Family physicians, rehabilitation physicians, and pharmacists were arranged to single outpatient clinic

# Results

Our hospital has 8,535 loyal patients. The hospital was required to provide health promotion and integrated care service for such patients. The service provide health promotion activity for elderly: smoking cessation, body weight control and so on. It also reduced chances of therapeutic duplications. Project statistics included cases between January 2010 and January 2013. The collected data showed that the results for three major indexes were up to standard

# Conclusions

The number of visits to health promotion & integrated care OPD per month was 2.31 visits per patient. The average monthly medication per person was 7.96 items. Good results had been reached, indicating repeated administrations of the same item of drugs or examinations within 30 days of inspection. Finally, the health promotion plans were developed individually by the physicians based on each patient's functional assessments

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# Clinical effect of integrated care outpatient: An example for elderly multiple chronic disease patients

# YAN YU-HUA

# Introduction

Following yearly increase in the elderly population, the number of multiple chronic disease patients is increasing dramatically in Taiwan. Such patients tend to register at hospitals, seek medical treatment and frequently receive medicine, thereby leading to inconvenient medical treatments and wasted medical resources. The integrated care model for elderly multiple chronic disease outpatients under construction at the subject hospital is dedicated to providing an adequate, efficient, safe and kind holistic approach to patient care.

# Purpose/Methods

The integrated care models under construction are categorized into (1) integration of special subject treatment groups dedicated to providing patients with on-stop medical service, e.g. integrated care for elderly outpatient; (2) integrated care by attending physicians, e.g. the attending physician takes charge of the medical treatment after consulting with other specialty physicians and concludes the prescription.

# Results

1.A total of 1,115 subjects were enrolled per quarter. 2. Average growth in medical expenses: fell by 5.94% in Q2 of 2012, fell by 6.85% in Q3 and fell by 7.23% in Q4 . 3. Average frequency of outpatient per month: 1.356 times in Q2 of 2012, 1.356 times in Q3 and 1.331 times in Q4. 4. Average Growth rate : fell by 5.94% in Q2 of 2012, fell by 7.23% in Q3 and fell by 7.33% in Q4.

# Conclusions

The integrated care team may reduce the frequency of medical treatments sought by patients and medical points, while also resolving the complicated medical care needs of seniors, thereby upgrading the medical quality and medical benefits. Meanwhile, hospitals may also retain loyal and non-loyal cases, which may create a niche for sustainable operations at the hospital, such unnecessary medical services as repeat medicine administration, and to upgrade medical quality and ensure safety of medication.

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Drug-drug interactions in a cohort of elderly patients: we can avoid them

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# Introduction

Drug-Drug Interactions (DDIs) are among the main causes of Adverse Drug Reaction (ADR) in the elderly. About 1/3 of elderly's hospital admissions is due to DDIs. Many studies about DDIs were conducted in a hospital setting while our study draws attention to the outpatients. The AUSL of Reggio Emilia in 2012-2013 participated at a Pharmacovigilance regional study. The aim of this study was to sensitize GPs about DDIs in order to reduce and recognize them and to rationalize polypharmacy.

# Purpose/Methods

We analyzed all NHS prescriptions for patients aged ≥ 65 years that received at least 5 co-administered chronic drugs and that were selected to identify DDIs for the first half of 2011, 2012 and 2013. We assorted DDIs for possible clinical consequences: kidney injury/hypotension, QT prolongation, gastrointestinal bleeding, serotoninergic syndrome, enzymatic inductors-inhibitors. During the second half of 2012 we organized a training to the GPs that received individual reports containing the list of patients with DDIs for the periods considered.

# Results

Were found for the first half of 2011, 2012, 2013 respectively: 6388 patients with DDIs (12377 cases), 6529 patients with DDIs (12348 cases), 6148 patients with DDIs (11265 cases). The main DDIs identified for the periods considered were: ACE inhibitors or ARBs + NSAIDs (3606, 3571, 3211 cases), diuretics + NSAIDs (2092, 2110, 1786), ACE inhibitors or ARBs + diuretics + NSAIDs (1729, 1708, 1444), SSRIs or NSAIDs + ASA (3457, 3517, 3419).

# **Conclusions**

The patients in polytherapy increased in the examined periods but the percentage of patients with DDIs on the selected cohort decreased throughout the period of the study. The total number of cases of DDIs has remained constant for the periods preintervention (semester 2011-semester 2012) instead it decreased in the post-intervention period that was semester 2013 (semester 2013 vs semester 2012 -9%, in less 1083 cases of DDIs). Among avoidable drug treatments NSAIDs, SSRI represent the most frequent interacting classes.

# **Comments**

Interventions to increase the awareness on the most prevalent, dangerous potential DDIs had help practitioners to avoid the harmful polytherapies and these interventions probably could reduce the NHS costs associated with hospitalizations due to DDIS predictable/avoidable and the patients'suffering. We produced

an updated easily accessible list of DDIs assorted for possible clinical consequences shared with the panel expert of GPs and Pharmacists. From our project some initiatives have been undertaken as clinical Audit conducted from physicians.

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Care and Health Promotion: prevention project on vitamin D deficiency in residents admitted to nursing homes affiliated with the health system

# **ORTONE Elena**

# Introduction

The vitamin D deficiency is particularly common in the elderly population. In many studies it has been demonstrated a relationship between vitamin A deficiency and risk of falling and then fracture, particularly of femore. The department of geriatrics and post-acute care hospital in Biella in collaboration with the study group for the diagnosis and care prevention of osteoporosis has developed a project with practitioners working affiliated to the national health sistem and the hopital.

# Purpose/Methods

1) Meetings with all the heads of facilities for the elderly and nursing staff of these facilities for a total of 40 structures. 2)Official presentation of the project through a public lecture to the public, to the press and on local television on the occasion of World Osteoporosis Day 3)Meetings with the hospital pharmacy to define the mode of distribution of the drug to the structures and to decide how the checks concerning the proper administration of the drug 4)Involvement of medical direction to formalize the project through the local press

# Results

A)Population enrolled : all residents in nursing homes in contractual arrangements under which a total of 604 patients B)Treatment protocol suspension of vitamin D as calcitriol , cholecalciferol, calcidiol and administration of cholecalciferol with the following dosages : 100,000 IU orally per week for three consecutive weeks ; 1000.000 units internzionali by mouth every two months to eleven months. C)Prescribing the family doctor prescribes the treatment protocol in the medical record in this nursing home

# Conclusions

For the first time it has been implemented in our hospital a primary prevention project for nursing homes on vitamin D deficiency to reduce the number of falls and therefore fractures. If the results will be a significant reduction in falls and therefore



fractures in patients enrolled on the previous year, this project will be extended to all residents of nursing homes in Biella.

# Comments

The vitamin D deficiency is a serius problem for elderly population. Create an opportunity to improve the low ematic levels with a collaboration between general practitioners and hospital services like the hospital pharmacy was a project of primary prevention that was well accepted by 40 elderly structures interested to control better the osteoporosis problems.

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Polypharmacy in elders of the province of Trieste (Italy). An "observatory" to analyze poly prescriptions

# BICEGO Livia, SOTTOSANTI Sara, FALESCHINI Paolo

# Introduction

The 28% of people living in the Province of Trieste are aged 65 years or more. Many people of this age group are affected by important chronic degenerative diseases. The treatment for these diseases requires the simultaneous use of multiple drugs. This practice is known as "polypharmacy". The benefit of the "polypharmacy" is to reduce the doses of the single active substances, but it could induce the occurrence of drug interactions that can cause iatrogenic diseases.

# Purpose/Methods

It was made an "observatory" to analyze drug prescriptions "at risk" of interactions in people aged  $\geq 65$  years old, with the aim of a capillary supervision of the most frail patients exposed to polypharmacy. The project identifies the general practitioner as main architect of therapy coordination. An accurate reporting was developed in order to identify the assisted poly-treated people for recognize the "critical" cases that require more controls.

# Results

According to the age, we saw that for "chronic" therapies there is an exponential increase both in the number of prescriptions and in the number of drugs prescribed. Instead, for "not chronic" therapy the trend is linear. Because the interactions between drugs grow linearly with the number of active principles used, this allow us to determine the percentage of risk of drug interactions depending on the number of drugs used.

# Conclusions

This control activity enabled us to identify the characteristics of poly prescription which is being implemented in the territory under investigation. We understood that prescriber's attention prevents the onset of situations characterized by a high incidence of interactions. As a matter of fact, only the 0.6% of these interactions are contraindicated, the 18.8% are major and the remaining 80.6 % represents the interactions of minor or moderate type and so with less iatrogenic potential.

# Comments

The high percentage of people over 65 years old makes the province of Trieste, one of the Italian territories with the highest percentage of seniors; this value is constantly increasing and in ten years will reach 30%. For these reasons, this area offers the ideal backdrop to a perspective processing of the phenomena that affect the elderly. The analysis is not strictly related to the purpose of the type of care.

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Safe Medication, a Safe
You~Pharmaceutical Care Services
Plan for Elderly Living Alone in Shilin
District

# TSENG Hui-Fang, WU Chao-Hua, YUAN Lu-Fang, HUANG Chiu-Yu

# Introduction

In Shilin District, there are 228 elderly persons with health issues who live alone. In regard to illnesses, 38.9% of them suffer from high blood pressure, and 14.0% of them have diabetes. The Shilin District Health Center has teamed up with local community pharmacies to help elderly persons living alone who are without the care of their family, providing at-home pharmaceutical care services and giving them guidance on using medications correctly, to safeguard the health and safety of medication use of elderly persons living alone.

# Purpose/Methods

1.By helping elderly persons acquire proper knowledge, attitude and behavior on medication use, through guidance provided by community pharmacists, a living environment where the elderly uses medications safely is to be built. 2. The center's section nursing staff carried out assessments using the Pharmaceutical Care Needs Evaluation Form. In all, 26 people had scored 5 or higher or had paid multiple outpatient visits and took multiple medications. Community pharmacists were arranged to provide at-home pharmaceutical services Subsequently, were continuously tracked, cared and managed by the section nursing staff.

# Results

1.Among elderly persons living alone who participated in the plan(228 individuals),85.3% took medication daily.In terms of the numbers of medications taken,87.8% took 5 or less types of medications,and 12.2% took 6 or more types.In need of pharmacist consultation accounted for 17.0%. 2.Among the 26 elderly persons who received at-home pharmaceutical services provided by pharmacists,54.3% had been taking 9 or more types of medications for prolonged periods of time.Follow ups on these individuals revealed that 9 of them had adjusted their medications.

# **Conclusions**

The Pharmaceutical Care Needs Evaluation Form was used as the indicator for changes in the medication taking behavior of 11 elderly persons who pharmacists intervened twice with their pharmaceutical services. Results of the analysis of pre-and posttest effectiveness showed that there was a significant difference in the total score for multiple medication use, special medication status, and pharmaceutical needs of elderly persons. The intervention of pharmaceutical care services yields significant effects on improving the medication taking behavior of elderly persons living alone.

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# Performance Analysis of refill prescriptions: Elderly chronic disease patients use "Drive-Thru pharmaceutical"

# YAN Yu Hua, CHEN Jui Fang, CHEN Yi

# Introduction

Chronic illness management is an increasingly important global health issue. Population aging is a global phenomenon associated with various challenges to our medical care system. The proportion of the Taiwanese population over 65years of age was 7% in 1993 and will rise to 14% by 2019. To overcome the impact of the chronic disease and to prevent chronic disease through effective health care strategies and management have become the imperative subjects in global public health.

# Purpose/Methods

To improve the medical care of the age-friendly health care environment, the case for the elderly chronic disease patients (Refill Prescriptions) implement the "Drive-Thru pharmaceutical" counters, evaluate the effectiveness of the implementation to understand its improvement. Improved chronic disease for health services consumers to pick up their prescriptions through the hospital hotline to make an appointment, you can directly lead to pharmacy drugs, health services consumers in the hospital to reduce waiting time.

# Results

A Case Study will refill prescriptions began in August 2013 by the nursing staff refill prescriptions on the "Drive-Thru pharmaceutical" health education, the establishment of the hospital in the pharmacy "Drive-Thru pharmaceutical" exclusive counter. In September 2013 began, in September using the "Drive-Thru pharmaceutical" number of 299, in October 408, November 567, an increase rate of 189.6%(p<0.001); improve the time to wait before prescriptions 25 minutes, improved waiting time of 3 minutes and prescriptions (p<0.001).

# Conclusions

The short term effects on knowledge and practice after an educational lecture about refilling prescriptions for chronic diseases, cases can be achieved by the establishment of the hospital's patient-centered care "Drive-Thru pharmaceutical" exclusive counter the medical environment-friendly and can save a lot of people because of registration, prescriptions and spend unnecessary time.

### Comments

Although we saw an immediate effect of the educational lecture on the knowledge gain and a high proportion of people reported that they were willing to have their prescriptions filled at pharmacies, longer follow up is needed to find out the long term effect of the educational lecture.

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# Use of multidisciplinary case conferences to improve the quality of care for home care patients

# SHEN Chung-Hsiu, LAI Hsiu-Yun

# Introduction

Case-based long-term care emphasizes the care of whole person, including physical, psychological, social, and economic aspects. It generally requires continuous and collaborative effort to meet the complex needs of the patients. Multidisciplinary case conferences enable health professionals with different specialties to discuss the treatment options face-to-face. Though the process, team members could provide integrative care to restore patients' physical, psychological and social functions efficiently.

# Purpose/Methods

Patients who meet one of the following criteria were eligible for multidisciplinary case conferences: 1) Cannot cooperate with medical or nursing care, 2) Significant medical problems, such as malnutrition, joint contractures and pressure ulcers, 3) Social and psychological problems, 4) Home care nurse could not solve the nursing problem. The home care nurses would screen the patients monthly, prepare meeting agenda, and follow up previous results. The multidisciplinary team will make



recommendations and develop care plan. The professional members include: geriatricians, family physicians, clinical pharmacists, dieticians, rehabilitation therapists, psychologists and social workers.

# Results

From 2011 to October 2013, the Home care team in NTUH Hsinchu branch had held 34 multidisciplinary conferences, the participation rate reached 100% and the patient and family satisfaction rates increased from 95.2% to 98.3% after team work intervention. The main issues were nutrition, rehabilitation need and medical care. For example, in March 2013 a 62 year-old ICH home-care patient was bed-ridden and on NG feeding, his family refused PEG management, after team-work intervention, the patient successfully removed the NG tube and start PEG feeding, his muscle power increased progressively, from MP score 2 to 4. The nutritional state and life quality were improving. The families gave a positive feedback.

# **Conclusions**

As population ageing, the demand for long-term care also increases. The establishment of a holistic long-term caring system is one of the significant issues of our national policy. Based on a multidisciplinary and patient-centered care program, our ultimate goal is to improve quality of care, enhance patient safety, and collaborate different professional expertise. Through mutual communication and understanding, we could delivery care more efficiently and achieve best treatment strategy.

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# The experience of implementing Smoking cessation consulting and message to improve nocturia in the elderly

# WENG Wei-Che, TSENG Hui-Chen

# Introduction

Nocturia is one of the most bothersome symptoms of lower urinary tract symptoms in men and women. Rising at night to urinate can lead to traumatic falling accidents and has been linked to an increased risk of hip fracture and is associated with increased mortality, especially in the elderly. Nocturia may result indaytime fatigue and lower levels of general well-being. Nocturia has a multifactorial origin; the main causes are nocturia polyuria , lower bladder capacity or both. Cardiovascular fluid redistribution induced by COPD, hypertension is a common cause of nocturia polyuria. A dose relationship between smoking and nocturia of ≥ voids when smoking ≥ 16 cigarettes per day vs none was noted. The aim of the research is to implement Smoking cessation consulting and message to improve nocturia in the elderly.

# Purpose/Methods

The study is the first evaluation of the experience of improving nocturia by implementing smoking cessation. The participants aged from 60 to 80 years were recruited among the urology clinic. When presenting with nocturia, we obtained detailed medical history, smoking lifestyle and performed urine analysis, post void residual volume and ultrasonography. Analysis of 24-hour voiding diary (3-7 days) and blood pressure record (3-7 days) were performed. There were three hundred seventy-five patients with smoking habit entered into the pilot study under the diagnosis of nocturia . All the participants were received smoking cessation consultation and asked to complete a 72-hour voiding diary. Nocturia and associated problems were evaluated using King's Health Questionnaire (KHQ) and voiding diary 6 months later.

# Results

Total 375 patients (245 male and 130 female) were included in our study and age was from 60 to 79 years (mean age 71.3.±4.7). There were 209 patients (55.7%) have received medication for hypertension and 34 patients (9.1%) have received medication for DM more than one year. After implementing smoking cessation consulting and message, smoking cessation was reported in 224 patients (59.7%). Among these patients, the urine amount during sleep changed from 935 ml to 780 ml (p=0.0038) and the nocturnal frequency decreased from 3.7 voids to 2.3 void per night (p=0.04), otherwise, no significant differences were found among the patients without smoking cessation. In respect to analysis of the KHQ , quality of life was significantly lower in patients with successful smoking cessation (p=0.028).

# Conclusions

Nocturia polyuria was found to be sole etiology for nocturia in 33%, respectively 54% in patients with combined etiology. Comparisons of results obtained in this study, smoking cessation was noted to decrease nocturnal urine production, decrease nocturnal voiding frequency and improve quality of life. Smoking can induce atherosclerosis, hypertension, ischemic heart disease, chronic obstructive pulmonary disease (COPD) , and cancer, and the relative risk of heart failure for with COPD is 4.09 times compared with non-COPD. The COPD may influence the blood flow and blood redistribution may occur during sleep supine position. Thus, the renal blood flow may increase apparently and nocturnal polyuria occurs.

# Comments

The cigarette smoking brings about chronic pulmonary obstructive disease and alters the cardiovascular flow. It is the main cause of nocturia polyuria. Smoking cessation was found to improved cardiovascular circulation from many researches. In our study, the patients with successful smoking cessation were noted to decrease nocturnal urine production and nocturnal voiding frequency.

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# The Five-Color Vegetarian Meal Plan Satisfaction Survey

# CHANG Ya-Lin, KUO Shi-Ching, CHIANG Cheng-Yang, WU Jie-Ying, HU Fang-Ching, WU Jing-Hui, TSAO Chang-an, CHAO You-Chen

# Introduction

Nutritionists classify various vegetables, soy products and grains into five-color category, also known as the "rainbow of vegetables and fruits", including blue/violet (some classify as black), white, green, yellow, and orange/red. In the Chinese traditional medicine, these five colors correspond to our organ system, enhancing functions of the heart, spleen, lung, liver and kidney. Using the the five-color concept, vegetarian meal plan was designed for Taiwanese elders with swallowing difficulties to improve nutritional status and overall health.

# Purpose/Methods

Dieticians use the 24-hours dietary recall method to evaluate the nutritional status of patients over 65 years of age with swallowing difficulties. Using the dietary reference intakes (DRI) recommended by the national health institute, dieticians designed five-color vegetarian meals for these patients, including pumpkin porrdige, black sesame porridge, tomato oatmeal, spinach porridge and mushroom porridge, and assessed patients and patients' family satisfaction for the meals.

# Results

Seventeen patients' nutritional status were assessed. The average age were 81.0 years, body mass index 20.1+3.9kg/m2, and daily total caloric intake 1102+396kcal (22.87+8.81kcal/kg/day, 0.91+0.49g of protein/kg/day). These patients' total calories and protein consumption is prominently less than the DRI recommendation. 73% of these participants were omnivores. The survey (n=27) revealed a 77% satisfaction for meal appearance, 70% satisfaction for taste, 75% satsifaction for food texture, and an overall satisfaction rate of 73%.

# Conclusions

According to estimates from the United Nations, the elderly will account for 21% of the world's total population by year 2050. Due to many physiologic limitations of the elders, adequate nutrition is often a major health problem. Through our efforts, the five-color meal plan is an effective and feasible solution for enhancing the nutritional status in difficult swallowing function patients.

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# **Customizable Happy Meals Offered at a Long-Term Nursing Home**

# HSU Mei-ya, HUANG Yi-Chen, LIU Chin-Hua, HSIEH Ching-Chuan

# Introduction

The majority of long-term nursing home tenants are seniors aged over 65. Considering elderly people's poor chewing ability, most nursing homes offer set meals characterized by soft food, leaving tenants with little freedom to select their food. To provide a welcome diversion from the monotonous routine of nursing homes, we designed a menu that allows nursing home tenants to order food of their choice.

# Purpose/Methods

To provide tenants of a long-term nursing home affiliated with the Chang Gung Memorial Hospital in Chiayi meals of diverse variety, texture, and taste, every week we offer three types of meals designed according to the tenants' characteristics. These meals are known as "happy meals" and can be chosen based on each tenant's personal preference. A questionnaire comprising 13 question items was conducted before and after introducing the menu to survey user satisfaction.

# Results

Since the new menu was introduced in January 2013, tenant satisfaction with meals has risen to 4.4 points from 4.1 the previous year (ie, a 6.8% increase). Independent two-sample t-tests were performed to verify whether the happy meals enhanced tenant satisfaction regarding dish variety, taste, and overall impression. The results obtained were statistically significant (P < .0001), and the Cronbach's alpha of the questionnaire was 0.973. Under a 95% confidence interval, the t values were -11.43, -5.08, -6.97, and -6.89.

# Conclusions

The happy meals feature traditional local foods. By allowing tenants to select the dishes that comprise their meal, their need for customizable, diverse, and nutritious meals could be fulfilled. Moreover, with the provision of a wider variety of dishes, meal time becomes an increasingly enjoyable experience; thus, tenant satisfaction with meals was improved.

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The Planning and Services of Healthy and Delicious Diets for Elderly in Taipei City Hospital



# HUANG Ying-Fen, CHIN Huei-Min Linda, CHEN Chin-Yen, HUANG Ting-Yun

# Introduction

Taiwan has been national aging since 1993, the population of over 65 reached 11.2% in 2012. The days of stay in patients over 65 is 59.1% in Yang-Ming Branch, Taipei City Hospital. Older adults are more vulnerable especially during acute illness. Poor appetite or impaired oral control, or difficulty in swallowing may profoundly influence their food intake, nutrition, emotion and health.

# Purpose/Methods

During nutrition care process of the elderly patients, We dietitians aimed both increasing acceptance of diets provided by hospital kitchen and actual nutrients intake of those elderly patients; therefore, even if the manpower is so inadequate, except soft, pureed diet etc which consists of whole grains, shredded vegetables and fruits which served in the dishes, we also developed concentrated liquid diet which emphasized using hospital-made fresh and healthy foodstuffs instead of serving commercial formulas which had acceptance of difference and shortage of food varieties. At the same time, a Seniors Healthy Eating Recipes with delicious picture proceed in response to demand planning for publication.

# Results

Ten days cycle menu of concentrated liquid diet with mostly natural foodstuffs were completed and served to elderly inpatients who having swallowing difficulty routinely. This diet has good taste and makes some tube-feed elderly patients happily back to oral intake again. The Seniors Healthy Eating Recipes were also published for discharged patients and families application free.

# Conclusions

The elderly while suffering from illness not only need medical therapy and good nutrition but also pleasant quality of life. Nourishing and delicious foods modified by texture and fluidity can encourage them oral eating and make them good appetite and emotion.

# Comments

As hospital dietitians, we should examine the health-related quality of life of the elderly patients.

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# By health passbook, promote oneself health-caring motive and ability

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### Introduction

According to Ottawa's program of action, establish public policy, draft a health plan, hold a health-promoting activity to add old people's care skills, use the activity "Health passbook points for great rewards," and reinforce the acting abilities of the old.

# Purpose/Methods

1.Provide health passbook and tell them the rules. 2.Form a health passbook standard, join the forums, sift and test the cancers, test the blood pressure and blood sugar, and share the health acts or do the trace of abnormal exam results. One of these situations can get one point in the health passbook. 3.Everyone can exchange the gifts by the points.

## Results

Compare 5489 people did community sift and test from Jan. to Sep. in 2013 with 4731 people did the same things in 2012, we added 758 persons, and the growth was above 16%.

# Conclusions

Old people's health must be noticed and encouraged, we can promote the old join the activities by health passbook points for great rewards, give them the motive to establish their habits and abilities to let themselves be healthy.

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# Discussed Satisfaction of Using Aging Care Model for Aged Inpatients

# CHOU Mei-Hsiang, LIN Miaw-I, JEANG Shiow-Rong, KU Yan-Chiou

# Introduction

The 11.43 % population is over 65 years old at Taiwan in the aging era. In our medical center, the 36.1 % aged inpatients are noted. Appropriate care model of medical quality for aged inpatients is more important and necessary.

# Purpose/Methods

For discussed satisfaction of using aging care model for aged inpatients.

# Results

The 58 questionnaires (61.7%) are completed in the 94 aged inpatients and the retrieval rate is 100 %. It is noted from 1 (extremely dissatisfaction) to 5 (extremely satisfaction) for the scores of care quality. The percentage of samples above 4 score is 98.3 %. The most satisfaction is about care education of nursing. The lower score is noted in case manager for case referral of discharge.

# Conclusions

The satisfaction rate is up to 98.3% in aging care model for aged inpatients and reveals the appropriateness.

### Comments

We hope the more interventions and index about aging care model for aged inpatients to elevate the care quality in the future

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# Improving Satisfaction of Bedridden patients toward Passive Range of Motion with nurse aides

# HUANG Hsiu-Mei, CHEN Chin-Huang, LI Lin-Wei, LEE Bih-O, LIN Tzu-Chia, CHANG Yucheng, SHIH Yun-Wen

# Introduction

Bedridden patient may experience changes in sensation, motion and cognition. range of motion (PROM) has been demonstrated to maintain physical activity and prevent muscle atrophy. In Taiwan, nurse aides are mainly responsible for providing medical support and performing PROM under the supervision of nurses in hospitals. Through a biannual survey conducted in our hospital, we interviewed 30 nurses and 32 patients. The satisfaction of PROM for patients toward nurse aides is only 69.3%

# Purpose/Methods

The aim of the project was to improve the satisfaction of PROM for bedridden patients toward nurse aides. The project was conducted in a regional hospital in southern Taiwan.From a situation analysis and field observation, four major causes were identified: (i) insufficient knowledge of PROM of nurse aides; (ii) failure by medical staff to implement proper shift transfer procedures; (iii) a lack of workplace regulations for PROM; (iv) difference in perception between patients and nurse aides.

# Results

Four intervention were applied to improve the satisfaction of bedridden patients toward passive range of motion with nurse aides: (i) use of CD of PROM, written test of PROM and build a training course to seed teachers; (ii) implementation of nursing instruction of PROM and shift transfer procedures among medical staffs; (iii) revision of workplace regulations of nursing aides, arrangement of the conventional PROM in-service education, and the development of supervision mechanisms toward nurse aides; (iv) regularly holding PROM seminars.

# Conclusions

After the implementation of the project, we conducted a survey for 30 nurses and 32 patients, and the satisfaction of PROM for

patients toward nurse aides increase from 69.3% and 49.5% to 85.3% and 88%, respectively.

# Comments

Performing PROM requires the cooperation and involvement of patients, medical staffs and nurse aides. The project could serve as a reference for clinical practice.

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# Investigating the Wellbeing of Residents in Long-term Care Institutions and Relevant Factors

# SHEN Shu-Chiao, HSU Tzu-Chuan

# Introduction

The Taiwanese population is aging rapidly. In 1993, the elderly population accounted for 7% of the population in Taiwan, causing Taiwan to be classified as what the World Health Organization (WHO) called the aging society. According to the Taiwan Department of Statistics, Ministry of the Interior (2012), the elderly population currently accounts for 11.15% of Taiwan's population and this percentage is growing. Because Taiwan has an aging society, the demand for health care is increasing for elderly adults. Therefore, long-term care has become an urgent issue requiring extensive investigation.

# Purpose/Methods

Purpose:This study investigated the wellbeing of residents in long-term care institutions and related factors. Methods: This study was a descriptive, correlational, and cross-sectional study. We adopted a convenience sampling method and collected data from the residents of long-term care institutions in Taipei City and New Taipei City. We used a wellbeing scale, self-compiled daily living scale, Instrumental Activities of Daily Living (IADL) scale, care needs scale, and a self-perceived health status scale to collect data. Overall, 185 questionnaires, including 151 valid questionnaires were recovered.

# Results

The average respondent age was 77.04  $\pm$  7.67 years. More men (66.3%) were residents than women were. The average number of disease types was 2.44  $\pm$  3.15. The average depression score was 3.96  $\pm$  2.79 and was negatively correlated with IADL ability. Approximately 20%–31% of the residents exhibited a second-degree disability or were totally or highly dependent on assistance to perform activities of daily living (ADL). Approximately, 21.5% of the residents exhibited 5 IADL disabilities. Primarily, the residents required assistance with ADLs, followed by medical care and assistance with managing general affairs. Overall, 11.8% of the residents perceived that their health statuses were imperfect. The average wellbeing score was 83.01  $\pm$  10.01. Concerning the 4 sub-scales, the residents



achieved high scores for life satisfaction and interpersonal relationships. In addition, wellbeing was not correlated with resident demographic background.

# **Conclusions**

These respondents of long-term care institutions exhibited mid to high level of wellbeing. Physical function deterioration caused by aging and living in care institutions for long periods engendered low level of self-assurance.

# Comments

Therefore, improving the health care system in long-term care institutions can delay the resident physical-function deterioration, and encouraging residents to participate in institutional and familial activities and implementing community care can increase the residents' level of self-assurance.

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# Rationale and Ethics for a correct use of Artificial Nutrition: a retrospective study of our cases

# BARBERINI Mariano, GATTA Alessandro, BARBERINI Mariano

# Introduction

Federico Ruggeri, Lorella Mozzoni, Alessandro Gatta, Liliana Sanchez, Mariano Barberini UO Anaesthesia and Intensive Care Dept of Emergency — "G Ceccarini" Hospital - Riccione (RN) AUSL Rimini — Emilia Romagna, Italy The growing weight of the older classes and the upgrading process of the welfare function, the development of a sensitivity directed to the qualitative aspects of treatment, have emerged in recent years a radical change of health care strategies. The effectiveness of enteral nutrition is validated by many authoritative evidence . The guidelines "ESPEN" emphasize that the elderly dysphagia or, more generally, the "frail disphagic patient" takes advantage of adequate intake to maintain and improve muscle mass, increase energy, reduce complications after fractures, fight depression, prevent and heal pressure ulcers, lengthen survival.

# Purpose/Methods

Although it is known the prevalence of PEG after its introduction in 1979, it is not easy to find information in the literature on the relative abundance of these procedures: in our case the number of plants has quadrupled in 10 year. The problem remains a major lack of information shared on the selection of patients in relation to the type and stage of disease and conditions.a superficial preliminary assessment of the patients.

# Results

There are some data amongst others that should lead to reflection. We tested a mortality of 16% in hospital a week after surgery, as well as a high mortality ( over 20% ) at 30 days from packaging in elderly patients with advanced cerebrovascular dementia. Such data would of course be unacceptable in any other surgical procedure and depend probably on a superficial preliminary assessment of the patients.

# Conclusions

Among the drawbacks of PEG, as well as elements of pure technical feasibility , most often refers to life expectancy (usually quantified in 6 months) , which is obviously difficult to establish and it is not always related to the quality of life itself. The international guidelines of AGA are "generic" , establishing only that the patient cannot eat, that the intestine is intact , acceptable risk of packaging, necessity of artificial nutrition greater than 30 days. In terminal cancer, artificial feeding is not recommended because " the outcome is affected by the neoplastic progression more than nutritional deterioration". Certainly more complex cases concern indication for PEG are persons "merely" very old , with entrapment , bedsores , cerebral involution conditions

# Comments

The key variables involved in the choice to pack a PEG when clinical situations are very compromised, are psychological, religious, ethical and legal motivations . Another important thing is to try to relate to in the right way and have a unique position to patients and / or family members. It is evident that nutrition has a high symbolic value and represents more than anything the care and assistance, meets emotional and moral requirements, soothes the senses of guilt and is not easy to rationalize it with scientific evidence. Pending further evidences, pronouncements shared by ethics committees, by appropriate legislation, our decision-making process must be based on professionalism, humane, common sense and even pity, in the most of the high significant .

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# "Memory Centre": a New Culture in Services for the Elderly

# ORTONE Elena, DEBERNARDI B., TREVISAN Paola

# Introduction

Reda, Barberis Canonico) with its 181,426 inhabitants, has an average of 26% of old people over 65, even reaching a high of 36% in some mountain areas. In this social-demographic context, brain degenerative diseases such as dementia represent a great challenge for health services in taking care of patients and their families, and educating the population as a whole.

# Purpose/Methods

The Geriatric Unit of Biella ASL has realized the "Memory Centre" with different local social entities to fulfil both these tasks. The "Memory Centre" is a multidisciplinary team responsible for 780 patients providing specialist visits and psychological and social support to patients and their families. It has organized training courses for GPs, nurses, health and social workers and events about Active Aging and Memory Loss Prevention. A "Brain Gym" has also been organized providing "brain training" courses for patients.

# Results

Numbers of "Memory Centre" service-users has risen from 79 to 789 in 4 years, with growth in both spontaneous access and GP referrals. There is also a jump in new patients with mild and very mild dementia (MCI) enabling us to carry out international research as well as empower patients' residual brain capacity using brain training. Similarly, the general population is now sensitised to dementia and people request updated information and also that the "Memory Centre" be further rolled-out.

### Conclusions

An aging population in the new millennium means new challenges for health policy-makers. Facing these challenges with a multidisciplinary approach, listening to the needs of patients, and to the public will, gives us the opportunity of linking the provision of immediate answers for the patient with actions in terms of holistic prevention, thereby achieving results which often exceed the highest expectations.

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# Session P1.6: Improving care for Alzheimer's disease and dementia

Clinical characteristics of patients with dementia and hip fracture: data from the "Orthogeriatric Project".

BERTOLOTTI Marco, CICCARESE Vincenzo, GUALTIERI Maria Chiara, LENZOTTI Giorgio, LOMBARDI Andrea, MARINO Gian Paolo, MUSSI Chiara, PIETRANTONIO Ann Marie, SCOTTO Roberto, SQUARZINA Pier Bruno

# Introduction

Falls and hip fracture are a great problem for older people, since they cause disability and poor quality of life. Older patients with dementia admitted for a hip fracture develop post-surgical complications and poor outcomes, that can be reduced by the multiprofessional approach applied from a team that includes Geriatrician. One of the aims of the "Orthogeriatric Project" (created at the Nuovo Ospedale Civile S. Agostino-Estense-NOCSAE). is to identify clinical characteristics of patients with dementia admitted for hip fracture.

# Purpose/Methods

We studied 828 subjects (mean age 84.26 ±6.9 years, 75.2% females) admitted with hip fracture to the Orthopedic Ward of NOCSAE. The patients were followed by the Orthogeriatric protocol: daily evaluation of a geriatrician working together with orthopedics, nurses, anesthetist, physiotherapists, from admission to discharge. The method used is based on multidimensional geriatric evaluation, that consists on clinical and pharmacological history, physical complete examination, evaluation of comorbidity, disability, mental status, and depressive symptoms, together with blood sample routine analysis.

# Results

The prevalence of dementia was 26.2% (N=217). Demented patients were older than non-demented (p<0.001); they had a higher anesthesiologic risk (p<0.001), and they were more likely to take a higher number of antipsychotics (p<0.001) and antidepressant (p<0.001). Despite the absence of lower prevalence of hypertension, patients with dementia took less diuretics (p=0.004), ace-inhibitors (p=0.015), and angiotensin II receptor antagonists (p=0.002). After surgery, patients with dementia developed more frequently delirium (p<0.001) and pressure sores (p=0.016) with respect to patients without dementia.

# Conclusions

As shown by our data, more than other subjects, demented patients need a multidimensional approach, that is guaranteed by the orthogeriatric management. In addition, the involvement of the family in the care process has proved positive for the patient's clinical course and its compliance. In the future, in order to improve the care of these patients are particularly vulnerable, we are exploring the possibility of creating environments dedicated to patients suffering from delirium.

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Hypovitaminosis D in Alzhemer's Disease :The Pa.Ca.To Study

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#### Introduction

Aging is associated with a large increase in the prevalence of hypovitaminosis D.25-Hydroxyvitamin D, 25(OH)D, is the best indicator for vitamin D status. Its possible role in the pathogenesis of Alzheimer's disease (AD) is particularly important, as AD remains a public health concern with no current treatment. Persons commonly at risk for vitamin D deficiency include those with inadequate sun exposure, limited oral intake, or impaired intestinal absorption.

#### Purpose/Methods

The aim of the present study was to investigate the 25 (OH) D concentrations in the blood,in a sample of Italian elderly people included in the Pa.Ca.To. Study (Pavullo- Catanzaro-Torino Study). We studied 122 patients (F 77% age 78,8± 5,21 years old) consecutive elderly patients attending our Geriatric Outpatient Clinics who had been diagnosed Alzheimer's disease between December 2012 and June 2013. We performed comprehensive cognitive assess-ment, medical examination, physical performance measures and blood samples.

#### Results

In our population hypovitaminosis D was present in 100%out of the cases (mean: 11,51±7,3 ng/mL); 96 patients (78,7%) had 25(OH)D serum levels inferior to 20 ng/ml; 26 (21,3%) patients had serum levels ranged between 20 and 30 ng/ml.

#### **Conclusions**

Vitamin D deficiency has long been known to cause osteoporosis, falls and fracture. Additionally, epidemiologic observations have associated low vitaminD status with increased risk of non-musculoskeletal diseases such as cancer, diabetes and cognitive decline. It is now well established that many people have vitamin D levels lower than those currently recommended for optimal health. The high rates of hypovitaminosis D reported in this study suggest that immediate action is needed to improve the vitamin D status in our population.

#### **Comments**

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Strenghening the role of the general practitioner in the early diagnosis of Alzheimer's: a first step to improve the continuum of care and support of the patient

#### **DEBERNARDI** Bernardino

#### Introduction

Memory Center provides Alzheimer disease patient and caregivers with a multi professional team and a customized therapeutic and assistance plan to get a shared management of the disease. In order to maximise benefits and results of the services provided, early diagnosis is needful and a close cooperation between Memory Center and General Medical Practitioners is indispensable.

#### Purpose/Methods

The Geriatrics Unit and the Education, Training and Communication Unit of the Local Health Authority of Biella (A.S.L. BI) implemented an action research project organizing information and sensitization meetings between Memory Center's professionals and the nine General Medical Practitioners territorial teams and implementing of four workgroups.

#### Results

The project has involved 113 General Medical Practitioners, almost the whole of the Practitioners of the area. After the meetings, there was an evident increase of patients referred to Memory Center by Practitioners and the four workgroups were implemented to treat these topics: therapeutic plans, pratictioner-patient-caregiver relations, early diagnosis and data collection about Alzheimer phenomenon in the area. Workgroups product and share good practices that could be applied.

#### Conclusions

Different Practitioners of the same territorial team could had different level of interest and involvement about the topic of the workgroup their team was assigned. Moreover some topics (for example data collection about Alzheimer and dementia incidence) were too complex and it's has been difficult to face them only by three evening meetings.

#### Comments

This project involves the citizen empowerment to develop a new culture to take care of mental disease and permit to develop the integrated care between the local health services and the home where the general practitione implementes his work.

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A Special Hospital Unit for the management of BPSD and comorbidity: a 7-year experience

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### Francesca, ZAVATTI Patrizia, MARCHESI Cristina

#### Introduction

In January 2001 a 20-bed Special Hospital Unit (SHU), integrated into the social network of the Province of Modena, was set up for people with dementia (PWD) experiencing major Behavioural and Psychological Symptoms in Dementia (BPSD) or crisis (including delirium) associated with chronic or acute organic co-morbidities or with other conditions not directly related to dementia. Aims of this new service are: 1) multiprofessional hospital-graded diagnostic surveys; 2) implementation of primary or secondary preventive measures (e.g., malnutrition, dehydration, falls) and patient- and family carer-oriented psychosocial interventions; 3) definition before discharge from SHU of a person-centered care plan in collaboration with the (dementia) network service. The staff is composed of five specialists (Internal Medicine, Geriatrics, Psychiatry, Neurology), one psychologist, two therapists ([psycho]motor and psychiatric rehabilitation), nine nurses and 14 care workers.

#### Purpose/Methods

Systematic recording of the SHU activities started eight years ago. Results presented below cover the 2006-2012 period if not otherwise specified. A total of 1,632 patients have been admitted into the SHU (a mean of 232 admissions yearly, range: 199-306) of whom 59% are females and 55% are aged over 80 years (a mean of 80.6 years; range: 41-101). 68,7% of the patients have been referred to the SHU directly by the General Physician although often on request of the outpatient specialist consultation services. 65.8% of the patients waited from one to two weeks for admission. The average hospital stay is usually 30 days. Yet, 52.8% of patients had an hospitalisation entirely aimed at intensive rehabilitation with an average stay of 22 days. The remaining admissions were made up of an initial intensive rehabilitation phase followed by a phase of discharge preparation that could sometimes take several days due to family problems or availability of beds in nursing homes. In the latter type of inpatient admissions average duration of intensive rehabilitation was 25.2 days while the mean length of stay of the preparation phase for discharge was 12.4 days. 58% of the patients returned to home, while the remaining were instituzionalised in nursing homes or were transferred to other hospital wards because of acute somatic illness requiring intensive or surgery care.

#### Results

A very low percentage of the patients died in the SHU ranging from 1,6% to 3,5%. Readmissions were relatively low averaging around 6%. Outcomes of efficacy covering the 2008-2012 period, are the Neuropsychiatric Inventory-UCLA (NPI, range 0-144) indexing the frequency and the severity of BSPD and the Breve Indice di Non Autosufficienza (BINA, Short Index of Self-sufficiency), a multidimensional evaluation scale approved by the Emilia-Romagna Region, exploring mobility, sphincter control, mood and cognition, language, hearing and eyesight, activities of daily living, occupations, the need for medical and nursing care, family and social network status in seniors (range: 80-1000; a score > 210 indicates absence of self-sufficiency). A statistically significant NPI improvement was observed (63.1 vs. 17.4 with a mean difference of 45.8 points; Student's T-test=22.8; p<0,001). In 75-80% of the patients this decrease at discharge was

registered in the subscores for delusions/hallucinations, agitation, depression, irritability, sleep disturbance, and eating disorders. Also the BINA score improved significantly, though to a lesser degree (490.6 vs. 425.6; a mean decrease of 64.9 points; Student's T-test=8.1; p=0,001) because of the irreversibility of certain items (e.g., sphincter control, sensory impairment, family and social network status).

#### Conclusions

Dedicated hospital units for BPSD have been recently advocated by the Alzheimer Cooperative Valutation In Europe (ALCOVE) because they may be of dramatic help not only for PWD presenting with major BPSD but also for professional and informal carers. The experience of this SHU is in line with the ALCOVE recommendations and stresses the importance of treating somatic illness and other conditions of somatic discomfort not directly related to dementia (e.g., pain, immobility, bladder catheter, malnutrition) in the management of BPSD.

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The "Caregiver's needs assessment for dementia" (CNA-D): a psychometric tool to detect need's profiles and their relationship with patient and caregiver characteristics

### MANNI Barbara, CHATTAT Rabih, MARCHESI Cristina

#### Introduction

Caregivers' experiences, physical strain, emotional distress, financial hardship in the long-lasting process of caring for a demented relative. A bulk of studies have investigated the distress and burden of caregiving, some studies described caregivers' need but none investigated the level of effectiveness. We tried to cast some light on this topic by checking both caregivers' needs and levels of their satisfaction.

#### Purpose/Methods

Detect whether the level 1) of relevance was evenly or unevenly distributed across the perceived needs; 2) of relevance was evenly or unevenly distributed across the available health/social supports 3) detect which patient and caregiver characteristics influence the profiles of the answers 4) analyze the relationships between perceived burden and need profile 100 Ss. with mild-to moderate dementia and their primary caregivers (M=37; F=63 — mean age 59.2, sd=10) were recruited at the Geriatric Center-University of Modena Each pt was submitted to routine psychometric evaluation, whereas each caregiver was interviewed by a trained psychologist to complete Caregiver's



Needs Assessment-Dementia-(CNA–D) and Zarit Burden Inventory. The former is an 18 items questionnaire with a 3-point ordinal scale to define relevance. For each item classified as relevant, a further judgment defines the level of satisfaction of available health/social supports.

#### Results

Only 1/3 of the proposed items resulted relevant, for them the level of satisfaction ranged from 60% to 90%. A relevant dependence resulted in the pt.'s characteristic able to influence caregiver appraisals, whilst the living together with pt makes the caregiver more prone to perceive high level of needs. Most of items classified as relevant, strongly correlated with burden score, this suggests a high level of validity of CAN-D Italian version; professional counseling on disease and its management resulted in the most requested support.

#### **Conclusions**

CAN-D allows to identify both the more relevant perceived caregivers' needs and their levels of satisfaction for the available support. These pieces of information could improve the local process of allocation of resources and their management. This could determine a higher caregiver reliance on healthcare service and a relief of caregiving burden

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# Can a non-pharmacological setting reduce earthquake impact on demented people?

### MANNI Barbara, MENABUE Giacomo, ORSI Flavia, GIDRON Yori, MARCHESI Cristina

#### Introduction

On the 20th and 29th of May two big earthquakes of 5.9 magnitude hit Mirandola city. 827 old people were evacuated from their houses and 327 from nursing-homes. In particular, the Alzheimer unit composed of 15 PWDwere moved to a nursing-home in Modena. It was found out that: people during/after a life-threatening event can show a post traumatic stress disorder and environmental conditions can also cause behavioral disturbances in demented people (BPSD). These problems can benefit from non-pharmacological treatments, but we don't know how a life-threatening event can influence behavior in demented people and if a environmental therapy is sufficient to control disturbances.

#### Purpose/Methods

To examine changes in clinical status of elderly patients exposed to the earthquake.15 Ss. with severe-moderate dementia (MMSE 6.68+-7.4) associated with important BPSD (NPI 41.9 +- 19.8). Each pt was submitted to a psychometric and behavioral evaluation at T0 (during transfer-days) after 3 (T1) and 6 months

(T2) with the same healthcare workers. We analyzed the data and compared it to the psychometric and behavioral profile 6 month before entering the Alzheimer unit (T-1)

#### Results

During the 6 month period the sample did not change psychometric profile with respect to T-1. On the other hand, despite the trauma event, functional ability, psychological and psychiatric symptoms decreased. No significant changes in drugs were noted

#### Conclusions

A non pharmacological approach, like a quiet and protective setting, seems to be more important in BPSD even when severe stressors like a life-threatening event occur.

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Dementia prevention activity involving local residents - "Active Brain Classroom" program and outcome

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#### Introduction

In Japan, there are 4.62 million dementia patients for the age group of 65 or older. With "mild dementia," a pre-stage of dementia, the figure reaches to 8.6 million or 25% of the population group. In order to promote dementia prevention, we trained some local residents to become activists (Active Brain Instructors). Independent from health professionals, these instructors dynamically provided an Active Brain Classroom for local residents. Their works for 2012-2013 and the outcome will be reported.

#### Purpose/Methods

1) Active Brain Classroom is a 7 months program. Once a month, participants meet for interactive works, exercises, oral reading and games, supervised by an instructor. Participants also practiced daily the "Active Brain in 5 Areas", a lifestyle to reduce dementia risk, and took records. 2) The effects: brain activity level was evaluated by the Category Fluency Task (CFT); emotion change and activity reduction were measured by the Emotion and Activity Scale for Dementia (EASD).

#### Results

1) Subject of the study was 110 participants who completed the Active Brain Classroom. The average age was 70.8 years old; the

gender ratio was 5 male: 105 female. 2) CFT result: 23 persons (21%) were improved, including 11 mild dementia patients. 79 persons maintained (72%) the same, and 8 persons got worse (7%). 3) EASD result: emotion change scored 7.6 to 7.0 points and activity reduction scored 4.5 to 4.7 points.

#### **Conclusions**

Active Brain Classroom is effective for prevention of brain activity reduction and emotion change. It was also effective for promotion of dementia prevention activities where local residents was invited to receive necessary education and asked to conduct the Active Brain Classroom program. Concerned with the rapid increase of dementia, our works brought a positive improvement by empowering the local residents through various works such as advertisement, education, training, and entrusting them to become instructors.

#### Comments

EASD; (Takeda et al.,2010) Result 3); Emotion change; 21 persons (20.4%) are stable, 65 persons (63/1%) are maintenance, 17 persons (16.5%) are unstable. Activity reduction; 15 persons (14.6%) are stable, 74 persons (71.8%) are maintenance, 14 persons (13.6%) are unstable.

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# Use popularizing mode to promote the cognition of Alzheimer's disease in the community.

#### HSIANG Hsin-Yu, CHIU Yu-Chen, YANG Jen-Hui, YANG Ming-Chih, TU Shih-Te

#### Introduction

Old people's health is the guide in the community, plan to do something protecting of Alzheimer's disease; including Sifting, passing on, sanitary teaching, consulting, and tracing administration. Each case is the main point, one family is a unit, and the community are the basic caring modes.

#### Purpose/Methods

1.Before the sanitary teaching must do advance test of Alzheimer's disease's cognition. 2.Hold the forum about Alzheimer's disease, watch the relative films, do some posters, and share some experience. 3.After the sanitary teaching must do result test of Alzheimer's disease's cognition.

#### Results

151 people did advance & result tests of Alzheimer's disease's cognition from March to Nov. in 2013. They raised the relative knowledge from 55% to 80%. This showed the efficiency about the knowing of Alzheimer's disease.

#### Conclusions

With the aging of population structure, more and more people get the Alzheimer's disease, combine the relative activities with the community; we can let more old people know the information of Alzheimer's disease, and then the old can own high quality in their life to reduce the burdens of their families.

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A Study on the Difference of Agitation Between Levels of Cognition Function in Elders with Dementia in a Nursing Home

### HSIAO Chien-Chang, SHIN Yu-Min, TSENG Hsia-Yueh, CHEN Chiu-Chen

#### Introduction

Dementia occurs mostly after the sixth decade and the prevalence of dementia increases year by year. As cognitive function degenerated, 50-90% of the elders with dementia occurs problem behaviors, particularly, agitation.

#### **Purpose/Methods**

The purpose of the study was to compare the difference of agitation between levels of cognition function in elders with dementia in a nursing home. A cross-sectional comparative study was used and residents in dementia care center of a nursing home located in the middle area of Taiwan were invited to participate in the study. Mini Mental Status Examination (MMSE) was used to detect the levels of cognition function and Cohen Mansfield Agitation inventory (CAMI) was used to assess agitation.

#### Results

41 elderly residents participated in this study. The average age of the subjects was 80 years old. The majority of the subject was female (51.2%) and was elementary school educated (34.1%). MMSE scores were between 0-23 (M = 9.88, SD = 7.35), and CAMI scores were from 12 to 122 (M = 69.07, SD = 34.38) . Mann-Whitney U test was used to compare the difference of agitation between severely cognitive impaired group and moderately cognitive impaired group.

#### Conclusions

The finding of the study revealed that the severely cognitive impaired group was more agitated than the moderately cognitive impaired group (U = 131.0, p = 0.041).

#### Comments

The reason may be that severely cognitive impaired elders have more difficulty in verbal expression and comprehension, however, their mobility is intact resulting in agitation existing, for



example, wandering, pushing others, and hinding This finding suggests that awareness and interventions to prevent from or decrease agitation are still needed while taking care for severely demented elders who are not bed ridden.

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# Environmental Volunteering as a Protective Factor for Older Adults' Cognitive Function

#### TSAO Wen-Lung, HSU Chiu-Tien, LIN Ming-Nan, LIAO Hui- Yen, LIU Chiu-Man, CHEN Chun-Po

#### Introduction

Early detection of mild cognitive impairment is becoming an important issue in recent years because of rapid growing of the aging population. Early detection and intervention has been suggested to be a good way in delaying the onset and severity of dementia. There are a couple of non-pharmacological interventions been suggested for this purpose. This study tested the hypothesis that volunteering in recycling stations in later life is associated with improved cognitive function.

#### Purpose/Methods

The AD8 scale was measured in a local community-living older adults of Taiwan (N=484; older than 65 years; 134 recycling station volunteers and 350 non-volunteers) and all participants were classified by 5 years age range into 5 groups (G1: 66-70 years; G2:71-75 years; G3:76-80 years; G4:81-85 years; G5:86-90 years). One-way ANOVA was used to assess the difference of AD8 scores between volunteers of recycling station and non-volunteers.

#### Results

The ANOVA showed significant difference of abnormal rate in AD-8 (F = 2.74, p < .05) in environment volunteers than those of community-living older adults. Cross-sectionally, the cognitive function of volunteers was better compared with non-volunteer after adjust for age.

#### **Conclusions**

This study offers the preliminary evidence for a significant positive relationship between environmental volunteering and cognitive function. Further research, including longitudinal and intervention studies, is needed to confirm and shed additional light on these initial findings.

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# The Need Assessment of Social Support among Caregiver of Dementia Patients in Rural Community, Taiwan

#### LIAO Hui-Yen, HU Meng-Ching, LU Hung-Yi, LIN Ming-Nan

#### Introduction

Taiwan is an aging society, and the population older than 65 years old is more than 10% which was around 3 million. It is estimated that 1 dementia patient will have influence on 3 families and 5 family members. Caring for dementia patient is a heavy burden for the family because it is a long and frustrated process. Burn out of the caregivers due to lack of support is an emerging problem in our society. In the study, we conducted an in-depth interview for understanding the needs of dementia caregivers in rural community. Thus we could understand and improve the quality of life and psychosocial health for caregivers and reduce the care loading.

#### Purpose/Methods

We conducted semi-structured in-depth interview in May and June, 2013. 2 males and 3 females of dementia caregivers in rural community participated. The questions include how long does your parents have dementia, and why do you participant in the caregiver support group and what kind support (emotional, informational, encourage support or others) do you need in caring dementia family? We use Nudist 6.0 software to coding all the qualitative information.

#### Results

1. Dementia patient will change the family structure. 2. The stress of caregivers is needed to be visible. 3. Provision of the related assistant to caregivers. 4. Creating local social support group is necessary. 5. To seek different methods to reduce the stresses in caring dementia family. 6. Realize the characteristic of dementia patients to the retard the degeneration.

#### Conclusions

Social support system is necessary and should involve the physical and mental health of the caregivers. Providing the hotline for counselling, patient groups and short term respite care. We found caregivers from different geographic area have different needs. Modification of the content of the support to fit individual family will provide a better support for these caregivers. Emotional support and encouragement such as empathy, timely expression of care, family supporting group and self-evaluation related information will improve the psychological well being of the caregivers. We also found the help seeking behavior is different of rural and urban area. Caregivers in rural area tends to use personal resources nearby rather than using public services from far away. However, supporting group is important for them to move on in caring dementia patients.

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### Music Therapy Project for Elder with Mild Dementia

#### LIOU Huoy-in, CHANG Jin-wen, WU Yi-jen

#### Introduction

Taiwan's elder population hits 2.52 million, about 10.89% of the total population in 2012. On average, one out of every ten people belongs to the aging group. There're about 5.24% of the dementia elderly inTaoyuan city. Dementia Prevention is the importent issue in community.

#### Purpose/Methods

The purpose of this study is to application of a music therapy for mild dementia elderly to increase the physical & psychological function. Running started from 08/01 /2013 and be finished at 11 /30/2013. Main target: those aged over 65 interested in Music Therapy in the elderly(AD-8 > 2). We are expected to hold a total of 10-week training session on Music Therapy. 30 mild dementia elders were included. Before and after the class, we conducted checkup on their body functions (temperature, pulse, respiration & blood pressure) & do the pretest and posttest on their ADL,IADL & AD-8 to evaluate their physical & psychological function. We used the point card system to promote attendance.

#### Results

Attendance rate: 90%, After intervention, 6 of temperature, pulse, respiration & blood pressure for the elderly has declined significantly, All participants were no significant differences in Activities of Daily Living (ADL) &Instrumental Activities of Daily Living (IADL) ,also psychological and cognitive function(AD-8) before and after treatment with no significant difference.

#### Conclusions

Research reveals the following (1)Progress an Music Therapy program on mild dementia elderly is helpful on improving the body function of dementia. (2)The operation programs of Music Therapy on mild dementia are developed from the research are contributory on promoting of dementia education into Taiwan's elder educations.

#### Comments

Recommends the community of elder music program to develop and practice the programs of dementia education, encourages to set up autonomy learning group for elderly to implement the programs on elder dementia's preventing between general elders with mild dementia elders.

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# The Effectiveness of Early Detection and Pharmacological Treatment for Mild Dementia

#### TSAO Wen-Lung, LIU Chiu-Man, HSU Chiu-Tien, LIN Ming-Nan, LIAO Hui- Yen, LU Hung-Yi

#### Introduction

The population aging more than 65 is increasing. Taiwan is among the fast growing aging societies. Consequently, more and more people suffering from dementia. Early diagnosis and treatment is a prerequisite; yet, most patients with dementia did not receive treatment until their dementia symptoms become severe. However, based on clinical observation, the effectiveness of medicine is not as good as we expect while the CDR level of dementia patients is 2 or 3. We conducted a study to assess the effectiveness of early intervention of cholinesterase inhibitors in the treatment of patients with mild dementia.

#### Purpose/Methods

This study recruits 44 patients with dementia and attempts to explore the effectiveness of treatment as their CDR level is .05 or 1. A one-year follow-up naturalistic observation method was employed to collect relevant data among patients with mild dementia. Patients were assessed using the Mini-Mental State Examination and the Clinical Dementia Rating Scale from pre- to post-intervention assessment.

#### Results

After one-year intervention, we observed non-significant deterioration in the total MMSE score and CDR levels in 49 patients at one-year compared with baseline (MMSE:15.40  $\pm$  5.04 vs. 15.43  $\pm$  5.18;CDR: 1.21  $\pm$  0.73 vs. 1.24  $\pm$  0.65).

#### **Conclusions**

The finding of this study showed that the total MMSE score among patients with mild dementia remains the same after receiving one-year treatment. This implies that if the elderly with mild dementia can receive treatment as early as possible, their dementia symptoms might not be getting worse and worse, which in turn reduces the health cost for caring dementia patients. Further study is mandatory for long term effect of the management.

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The qualitative Research about the Lived Experience of the caregiver



### accompanying persons with Dementia to Clinic Visit

#### SHIN Yu-Min, HSIAO Chien-Chang, TSENG Yueh-Hsia, PAN Mei-Ling

#### Introduction

Dementia is a common disease in older persons in Taiwan. The increase of the elderly population makes health care for older persons with dementia becoming important and urgent. However, noises in hospitals, complicated routes and clinic visit process, lack of dementia knowledge in medical staff may make family caregivers encountering problems while accompanying the persons with dementia to clinic visit.

#### Purpose/Methods

Qualitative research with in-depth interview was used to explore the experience of family caregivers accompanying the persons with dementia to clinic visit. Sixteen family caregivers (M = 58 years old) participated in the study by purposive sampling. Clinic Dementia Rating and Brief Agitation Rating Scale were used to collect activities of daily living, cognitive function, and problem behaviors of the persons with dementia.

#### Results

The finding of the study revealedsix lived experience: (1) Groping ways for accompanying demented persons to OPD, (2) Too abrupt to respond and embarrassment, (3)Endless, boring, and restless waiting, (4)Unfriendly medical environment, (5)Untimely medical treatment, and (6)Lack of specialized medical care for dementia.

#### Conclusions

The findings of the study could provide information to health professionals to understand problems for OPD visit.

#### Comments

Health professionals would provide assistance to solve the problems, for example, specialized dementia OPD, separated dementia OPD unit, and family restrooms.

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# Session P1.7: Improving education for and self management of diabetes and the metabolic syndrome

### Diabetes and Weight loss: a Pilot Study

#### ANG Yen, CHONG Ellena, NG Dicky

#### Introduction

Many people with type 2 diabetes are obese. Research provides strong evidence linking obesity to diabetes. Drug therapy remains the most commonly used intervention by the medical community to treat diabetes. However, it does not get to the root of the problem. Neither is it the optimal approach to the reduction of CV risk factors or quality of life. On the other hand, research studies found lifestyle changes and small amount of weight loss can prevent the development of diabetes or reduce its complication.

#### Purpose/Methods

The primary objective of this study is to examine the efficacy of body weight reduction through lifestyle intervention on patients with diabetes. Patients with diabetes or elevated blood sugar were referred to the lifestyle clinic at the hospital where they would be enrolled in a 10-week weight loss program. The nondrug therapy consists of providing calorie-controlled healthy meals daily, weekly exercise classes and educational classes focusing on motivation and behavioral change.

#### Results

All patient lost weight, with average weight loss of 8kg (9%). For every 1% drop in body weight there is a corresponding 2% drop on fasting blood glucose. All patients lowered their fasting blood glucose, with an average reduction of 18.42%, which is comparable to the effect achieved by some of the most commonly used glucose lowering medications, (sulfonylureas or metformin). All the participants improved their CV risk factors: reduction in blood pressure, triglycerides and waist circumference. One patient with 15 years of diabetes successfully weaned off insulin injection. Another one got off her diabetes medication completely.

#### **Conclusions**

This is the first structured lifestyle intervention program provided for diabetic patients in a hospital setting. Reducing body weight through diet and exercise appears to be effective in managing diabetes and many of its CV risk factors. Arguably, lifestyle intervention is a more "potent" alternative therapy to drugs as it does not only reduce the severity of the disease, reduce risk factors for its co-morbidities and in some cases, reverse it.

#### Comments

The success of the program, though the number of cases is small (n=8) shows that lifestyle modification should be emphasized and integrated into the care of patients with chronic diseases such as DM2. It also shows that lifestyle intervention can be done in a hospital setting where traditional acute care meets holistic care. The results also show diabetes may be effectively managed through weight loss, a finding pertinent at a time where the nation is wrestling with concurrent explosive increase of both DM2 and obesity

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### Discussion of Diabetics with Diabetic Knowledge Related Factors

#### FANG Miao-Ju, CHEN Ching-Yuan, WU Shu-Chuan, CHEN Ying-O, LIN Shu-Chao, TSAI Tsung-Lung

#### Introduction

Diabetes is a global problem and one of the major chronic diseases endangering people's health, and in 2011 even ranked fourth leading cause of death in Taiwan. Without good control, it can cause serious complications. Use of health education is an important way in the treatment of diabetes while people suffering from diabetes increased rapidly in recent years. How to use limited manpower looking for the most appropriate treatment is one of the problems the medical care currently facing.

#### Purpose/Methods

This study aims to explore the association between diabetics and diabetic knowledge, hoping trough diabetic knowledge questionnaires to analyze the effectiveness related to present diabetic's diabetic knowledge. The diabetics in hospitals in southern Taiwan are the objects of this study, with structured questionnaire to survey diabetic knowledge of 184 cases by purposive sampling and conducted with descriptive statistical analysis via SPSS18 package.

#### Results

The quantitative data obtained in the questionnaires of this study, through statistic analysis shows that 173 diabetics think "diabetes is a chronic disease can be controlled" accounting for 95.1% as the most, followed by 170 diabetics thinking "can be controlled by diet and exercise only in early stage" accounting for 93.4%, and 167 diabetics think "need for regular eye exams" accounting for 91.8%, as the top three.

#### Conclusions

It is suggested that using diabetic knowledge questionnaire not only can understand the cognitive situation of the diabetics' diabetic knowledge, but also the shorted part of patients' knowledge, thus provide health education, and then implement the diet, moderate exercise, regular examination and lifestyle changes to achieve the prevention and control of diabetes.

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#### Self-regulation Utilized to Promote the Health Behavior for Patients with Diabetic Foot Amputation

#### CHANG Chia-Shan

#### Introduction

Diabetic foot is the common chronic complication of the diabetes and that includes peripheral nerve damages, vascular occlusions and infection. If the problem is not controlled properly, ulceration, necrosis will occur and amputation will eventually happen. Besides, approximately 32-61% of patients having had amputations will be facing a subsequent amputation. Self-regulation is important in controlling the disease and beneficial changes in health behavior can be achieved by setting up goals to manage the disease and modify the learning behavior.

#### Purpose/Methods

Self-regulation theory is the patient-orientated theory, involving health professionals. It has three steps: self-monitor: carried out by observation and the problem being identified, such as keeping a diary; self-judgment: the behavior observed being compared to others' such as comparing the frequency of weekly exercising; self-reaction: collecting the results from self-monitor and self-judgment to establish plans and implementation; self-rewarding if goals achieved. Patient can constantly care for own health by goal set-up and learning-behavior modification to practice correct caring behavior.

#### Results

It is shown by various diabetes-related researches that self-regulation theory can definitely assist patients to modify behaviors to promote the capacity of self-managing chronic disease and to reduce the disturbance resulted from the symptoms. The core issue can be identified through self-monitor and goal set-up to further establish goals to change own behavior mode. The right health care behavior is established and so is the confidence to regain the physical autonomy.

#### Conclusions

Pertaining to patients with chronic diseases, the old-fashioned clinical health education is not suitable to be blended into their lives. As a result, patients lose the confidence on controlling the disease. Self-regulation theory is then utilized for patients to reflect and patient's self-motivation can be effectively promoted by setting up an achievable goal. Patients can obtain the best health condition and the quality of life by combining life with the disease to reach a sound health care behavior.

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Structured group education increases the empowerment of people with



### Diabetes and improves their outcomes

#### MANICARDI Valeria, MANICARDI Elisa, CAPUANO Elena, IEMMI Marika, GALLIANI Simonetta, MICHELINI Massimo, CHIARENZA Antonio

#### Introduction

Group education for people with diabetes is an important way of increasing awareness of the disease and the ability of patients to manage themselves and is an integral part of the care process.

#### Purpose/Methods

The aim of the trial is to assess whether a group education course, consisting of 3 interactive meetings with the "conversations maps" tool, conducted by a tutor (nurse/dietician) improves the metabolic compensation of diabetes.

#### **Results**

The education groups were comprised of 82 Diabetics T2 (48 F, 34 M), age X of 62.8 +/- 8.5, average weight of 90.3 +/- 18.8 kg, who completed the course of 3 group meetings; their body weight, BMI and HbA1c were measured before and six months after the educational course. The average BMI dropped from 35.2 to 32.7 and the HbA1c from 7.8 to 7.4 % . In 84.4% of patients the metabolic compensation improved.

#### Conclusions

Group education for people with Diabetes improves awareness of the disease and empowerment, but also the metabolic compensation of diabetes.

#### Comments

Group education must increasingly become an integral part of the therapy for a chronic disease like diabetes and must become part of the work organisation of the team of diabetologists.

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## The efficacy and experience of group exercise intervention by diabetes care team

### KUO Chao-Tsen, LO Su-Huey, HSU Jin-Chyr, HSU Yuan-Nian

#### Introduction

Exercise is a very important element in diabetic control, but it was not an easy thing for diabetic patients to accomplish. The

data showed that only 42% of our diabetic patients had exercise program for more than 150 minutes every week. In order to encourage the diabetic patients to have the habit of regular exercise and understand the effect of exercise on the body weight change and blood sugar control, our diabetes health promotion center had organized a diabetic morning sport program. The program member includes certified diabetes educators (nurse and dietician), exercise trainer, diabetic patients and/or there family. The exercise program followed the recommendation from Taiwanese Association of Diabetes Educators

#### Purpose/Methods

Early morning exercise class were held at Saturday 6:00 am monthly, after blood sugar and body weight were checked, the exercise trainer would instruct the members to perform warm-up activity including joint mobility exercise, stretching exercises, slow jogging, power walking and exercise walking for 20 minutes, than 30 minutes for the members to have free time for running, power walking or jogging, and final 10 minutes for cool-down. The member of the early morning exercise class would attend the road running activity bimonthly.

#### Results

During 7 months of activity, 20 diabetes patients were enrolled(M:F,7:13), there were 7 times of early morning exercise class, 4 times of road running, the HbA1c before and after the program were 9.6±1.8% vs. 8.6±1.2%, P=0.008, the body weight before and after the program were 73.4±13.5kg vs. 71.3±13.6kg, P<0.001. Persistent regular exercise after this program were 85% (17/20).

#### Conclusions

Exercise is very important for diabetic control, but only 42% of our diabetic patients had exercise program for more than 150 minutes every week. Diabetes educator should not only instruct the patient to have habit of regular exercise but also to provide exercise program and technique, use peer influence to encourage the patient to understand the benefit of exercise.

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### Diabetes Elementary School – from Concept to Practice

#### LIAO Chia-Yin, SUN Chao-Liang, TU Chi-Fang, YANG Siou-Ru, LIAO Shang-Chih

#### Introduction

Elementary school is the beginning of a lifetime study, and learning the ways of a diabetic life style is like schoolwork, a solid foundation is the path to a wonderful life. The current plan is based on the concept of the primary school curriculum, coupled with health literacy and applying to health education to establish

a diabetic control team. The goal for diabetic subjects is not only to interact with health knowledge, but also to enhance patients' thinking. In addition, encourage patients to integrate their life experiences in personal decision-making, so that patients not only receive knowledge (functional health literacy), but also to be able to apply the knowledge (critical and interactive health literacy) to control disease aggressively.

#### Purpose/Methods

A total of Forty-one diabetic patients with glycosylated hemoglobin (HbA1c) > 7.5% were selected in October 2011. At the beginning, diabetic patients were grouped according to each patient's literacy assessment for diabetes. The classes were held once per month and the course lasted six months. We provided tour activities, including "educational film about a crucial diabetes test HbA1c - why do you need its value below 7%", "winter camp for insulin experience and self-care sharing", and "carnival for life and for diabetes gourmet enjoyment". For lower learning patients, we arranged after-school tutoring, provided diet recommendations with images as well as drugs images to confirm the mode of administration of the trainees were correct. In addition, activity-type tests were held in midterm and final assessments while more rewards were given to students with well-controlled HbA1c value, well-coordinated with recommendations and complete records. It also encouraged patients to express and share their feelings and experiences, and inspire students to interact and help each other.

#### Results

A total of twenty participants finished the full course (51% are female; mean age of 54.8; no medication adjustments during the course). Biochemical data showed HbA1c decreased from  $8.36\pm1.1\%$  to  $7.44\pm1.2\%$ ; triglycerides decreased by 36.3 mg/dL and total cholesterol reduced by 15.6 mg/dL, all reached statistical significance (P < 0.05). According to the DAWN diabetes self-management assessment, it revealed a significant improvement of diet behavior, medication compliance, and self-monitoring (P < 0.05). Most of the participants(60%) at least maintained or even further decreased HbA1c at the following.

#### Conclusions

The results demonstrated that this program significantly improved the effectiveness of patients' self-blood-glucose-control. The medical staff should not be limited to traditional institutional care, but should also organize the community and family more aggressively to provide continuous and integrated patient care. Furthermore, help patients to strengthen the confidence of disease-care and problem-resolving, enhance self-care ability, achieve effective and long-term glycemic control, and delay the onset of diabetic complications.

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### Explore the effectiveness of diabetes on high risk of health promotion

### TSAI Hsiu-Jen, HUANG Ling-Ting, HSIEH Ming-Juan, HOU Chi-Chun, LO Hsin-Yi

#### Introduction

Heredity, obesity, lack of exercise and other factors associated with the occurrence of diabetes are closely related; weight controlling to avoid obesity, healthy eating and regular exercise, and establish a healthy lifestyle can prevent diabetes. Through health promotion for diabetes to remind people to pay attention to hypertension, diabetes and cardiovascular disease,enhancing the ability of people to self-care, early detection of cases, early treatment to reduce the prevalence of diabetes and complications.

#### Purpose/Methods

Twice a month regularly associated with diabetes and metabolic syndrome health education lectures by nurses, nutritionists and other professionals. Contents include diabetic diet, medications, complications, exercise, reduce high risk factors (smoking cessation, weight loss), home care, and so on health-related topics health education activities. Measuring and analysizing. height, weight, waist circumference, blood pressure, fasting blood glucose of attendance seasonally were analyzed.

#### Results

After promoting health activities for a high-risk group, we found that Fasting plasma glucose  $\geq$  100mg / dL to improve the rate of 63%; BP  $\geq$  130/80 mmHg improvement of 55.1%; T.Cholesterol  $\geq$  200 mg / dL improvement of 25%); waist circumference (men  $\geq$  90cm, females  $\geq$  80cm) improving 45.6%; BMI> 22kg/m2 decrease 51.5%; weekly exercise less than 150 minutes following improvement rate of 85.5%.

#### Conclusions

Early intervention and health education can improve eating habits, increasing activity levels for patients with hyperglycemic can significantly improve blood sugar; through no significant statistical difference in blood pressure, but the overall improvement of 55.1% was found for a healthy lifestyle improve blood pressure by help. It's improved that physical activity and intervention health education can enhance the willingness of people to do exercise.

#### Comments

Diabetes and genetic, environmental and lifestyle are correlated. Reducing the risk factor can prevent or delay the disease . But now for the purpose of seeing a doctor is treatment of disease ,not prevention and protection of health checks , so how to make people pay attention to their health is the main work of health care workers in the direction of the target .

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### The operation model of diabetes support group in a hospital in Taiwan

### TSAI Ming-Yan, LIU Bie-Ching, CHIU Ge-Lin, CHANG Mei-Jen, CHANG Jia-ping

#### Introduction

In addition to medical treatment and consultation provided by the medical team, better diabetes care requires support from the diabetes support group. The group members could encourage each other to maintain wellbeing and to solve the problems in their daily lives, which has become an important part of diabetes care. The diabetes support group can help diabetes patients and their families to understand the causes of diseases, treatments, and self-care knowledge and to establish a healthy lifestyle.

#### Purpose/Methods

The diabetes support group in NCKU Hospital consists of three groups with 33 patients including a president and three group leaders. Group membersmeet trimonthly and measure their blood glucose, body weight, blood pressure and waist circumference as well as record their health behaviors. We invite physicians, nurses and dietitian to lead a group discussion to let members share their experience of self care in order to empower them to implement a good diabtes care.

#### Results

Our 33 diabetes support group members had a mean age of 64  $\pm$  9.3 years, and 15 (45.5%) of them are male. Of them, drug compliance is 100%; 21 (63.6%) check blood glucose regularly; 21 (63.6%) have correct amount of dietary carbohydrates; 26 (78.8%) take exercise at least 150 minutes per week; 23 (69.7%) have a blood pressure <130/80 mmHg; 19 (57.6%) have a glycated hemoglobin  $\leq$ 7%; 14 (42.4%) have a low-density lipoprotein cholesterol <100mg/dL

#### Conclusions

Our diabetes support group is female predominant. In terms of good-diabetes-care behaviors achievement rate, drug compliance is the highest, followed by exercise, and self monitor of blood glucose was the lowest. Among the rate of treat-to-the-target, blood pressure control was the highest, while the lipid control was the lowest.

#### Comments

Diabetes support group will keep encouraging health behavior and empowering diabetes patients.

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# A project to enhance proper operation of Insulin Pen Injection Device among Diabetic Patients

## HSU Hui-Chun, ZHUANG Wan-Chi, JEANT Shiow-Roug,, KU Yan-Chiou, CHIU Li-Hui, CHEN Ya-Mei

#### Introduction

Diabetes mellitus is the fifth of ten leading causes of death in Taiwan. Patients need oral or injectable medications for their blood glucose treatment to reduce complications caused by the disease. The improper use of insulin pen can affect instability of blood glucose control, therefore the importance of correct use of insulin pen, which is an important care goal.

#### Purpose/Methods

A team was established to develop health education leaflets for the operation of insulin pen injection device, manual and CD-ROM, setting up of algorithm for the health education, in order to enhance patient correct operation of insulin pen injection device, an effective blood glucose control to reduce the occurrence of the complications and intensify patient self care ability.

#### Results

Project teams facilitate the use of accessible health education and teach-back technique. Effective enhancing patient proper operation of insulin pen injection device rates from 79.5% to 92%.

#### Conclusions

This project by establishing a consistency, systematic health education guidance, enhancing patient motivation, learning correct operation of insulin pen injection device promoting patient self care, highlights the uniqueness of the nursing.

#### Comments

Some patients fear insulin injections, worrying about its addiction and the adverse reaction that can be caused by dialysis treatment, affect the daily life routine, resulting in the decrease of insulin treatment acceptance. Learning the causes and ameliorate the patient's problem, making more patient with diabetes early acceptance of insulin treatment , reducing the complications of the disease.

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Enhanced the self-care abilities of metabolic syndrome by following

#### education model in Changhua Christian Hospital

### TSAI Ling Jane, SU Shih Li, HSIEH Ling Lee, LIU Chin San, HUANG Ching Hui

#### Introduction

Metabolic syndrome(MetS) is a precursor to chroic disease. MetS in most countries are showing an upward trend. The primary cause of MetS is unhealthy lifestyle. Recent study indicate case management model can assist MetS patients to establish a healthy lifestyle and prevent generating vascular related diseases. The effectiveness of case management in Changhua Christian Hospital will be discussed.

#### Purpose/Methods

The study periods were from January 2010 to December 2013. The age of participants were among 20 to 80 year-old. 478 MetS subjects participated case management program that containing two or more times individualized lifestyle modification and telephone follow-up were intervention group; the other 1534 subjects with less than three metabolic syndrome diagnostic components without case management program intervention were enrolled as control group.

#### Results

Five components of MetS were analyzed, the five risk factors components including high-density lipoprotein cholesterol, triglyceride, waist, blood pressure, fasting blood glucose (AC) were got improved and with statistic significantly (p value <0.001). Dieting behavior including carbohydrate, saturated fatty acid, protein, sugar, animal skin, sodium, alcohol were statistic significantly (p value<0.001) by student t test.

#### Conclusions

The data demonstrated the MetS patients through the case management program including individualized lifestyle modification, telephone instruction and follow -up can enhanced self- health awareness and strengthen self healthy management abilities.

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### A health promotion program to set up a model for the total

#### LIN Min-Hua, MA Chieh-Yi

#### Introduction

According to the mission of Yunlin Christian Hospital,"promoting the community health, giving comprehensive healthcare, encouraging the self-achievement of the staff, and

preaching the Gospel", we submit a health promotion program to improve the quality of care for diabetes mellitus. In this program, we will collaborate not only the patients and their family, but also the resources from the community, staff and even the whole organization. From the interaction of each other and the execution of this program.

#### Purpose/Methods

Participants were 354 staffs of the Yunlin Christian Hospital in Taiwan.354 participants choose the diabetes family to be volunteers. Volunteers should had one of the following training conditions: Self-monitoring Blood Glucose program, Carbohydrate foods counting program, Dietary record program and Healthy gymnastics program. Five health promotion strategies from the Ottawa Charter were applied to Develop the community health promotion for a healthcare organizataion. the Taiwanese short version of the WHOQOL-BREF was administered to patients with Diabetes families from August 2011 to November 2011.

#### Reculte

There were 90 participants with DM included in our study, 53.3% were men,.Mean age was 64.1±11.6years;duration of diabetes8.6±7.8years. Before and after the implementation of this project in (1) satisfaction health (p<0.038)(2)health-related quality of life satisfaction (p<0.026) to enhance the positive sense. Our result also show that behavior of the staff who be a volunteer is 55.3% in consumed the 5 Basic food groups .They significantly have healthy eating more than the staff who not be a volunteer (44.1%).

#### Conclusions

The project can improve health promotion behavior of employers and satisfaction of health life quality of Diabetes families.

#### Comments

We suggest the intervention of Diabetes families should be more than half year In order to have more promising result.

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### Session P1.8: Promoting renal health

Older Patients' Preventive Behavior Knowledge of Chronic Kidney Diseases

CHEN Kuan-Hung, DUNG Shu-Ping, LAI Ya-Yan, LIU Chih-Hui, CHANG Yucheng, WU Yi-Chen, SHI Yun-Wen



#### Introduction

Recently, chronic kidney diseases were among older adults. In Taiwan the diseases' prevalence are higher. So we should understand the preventive behavior knowledge and associated factors of elders.

#### Purpose/Methods

Used the <code>[Survey</code> of the Health and Living Status of the Middle-Aged and the Elderly in Taiwan ,which was constructed by Bureau of Health Promotion, Department of Health. Respondents who completed this survey by themselves were analyzed and it contained 5,116 middle-aged and elders. The questionnaire of preventive behavior knowledge is "Do you know how to prevent getting chronic kidney disease in your life?

#### **Results**

There was 51.9% middle-aged and elders about prevention of chronic kidney disease being poor performance. We also found the results showed that elders (63.0%, P<0.001) and live in villages (66.3%, P<0.001) and never received education (76.5%, P<0.001), and live alone (59.2%, P<0.01) and felt health situation bad (63.3%, P<0.001), got four kinds chronic diseases (56.9%, P<0.01) and had depression(67.3%, P<0.001), got poor performances and meant significant about preventive behavior knowledge of chronic kidney disease.

#### Conclusions

For the poor performance population, we suggest that public health agencies should pay more attention about these groups and process health education or integration to raise the elders' preventive behavior knowledge of chronic kidney disease.

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### A Survey of Hemodialysis Patients' Self-Managing Status

#### CHEN Wen Chun, LIU Tz Jie, LIN Chiu Chu

#### Introduction

Self management is a very important issue for hemodialysis patients; it can help them successfully reach the balance between daily life and illness control. To achieve this goal, patients need to acquire the ability of solving problems, and be able to integrate illness and therapy into daily lives under different surroundings conditions.

#### Purpose/Methods

This research adopted the Hemodialysis Self Management Instrument (HD-SMI), which was developed by Song, Lin (2009), and cases are from the hemodialysis room of a medical center in Taiwan and three local community teaching hospitals. In all, there were 708 patients. We hope that we can use the result of this

research to fully understand and help patients improve their illness self-management.

#### Results

The result shows that the overall reliability is 0.88. The age range is from 18 to 95, and the average age is 57.81, with females averaging 51.7 years. The educational background of patients has a great connection with the following four categories, "partnership," "executing self care activities" "problem- solving" and "emotion processing and self management." The educational background is quite relevant to the Hemodialysis Self Management Instrument, HD-SMI, and the period of kidney dialysis toward the Hemodialysis Self Management Instrument, HD-SMI, P≦0.01, which means great variation.

#### Conclusions

The research was based on the self management instrument to do the investigation, which can help hemodialysis patents realize their condition; what's more, with the results we can go a step further to come up with an overall care strategy to promote their life quality.

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# Establishing Positive Health Care Recognition and Behavior in Caring for Re-construction Patients post Failed Kidney Transplant

#### **CHEN Yu-Chun**

#### Introduction

Kidney transplant is the only and final option to make renal functions recover to its original state. In spite of that, the following health care cannot be neglected post a successful transplant. Therefore, to establish and implement health care recognition and behavior is the priority of caring for pre-kidney transplant patient.

#### Purpose/Methods

The important care guidelines of caring for re-construction patients post failed kidney transplant are as follows: 1. Proactive two-way communication and establishing sound nurse-patient relationship and trust; 2. Enhancing health education and recognition of the disease such as compliance of medications, hemodialysis, infection control and regular follow ups and so on; 3. Multidisciplinary team input and professional group consultation; 4. Establishing positive thinking and support system such as experience sharing between patients, welfare support and religious support.

#### Results

Establishing diverse health care recognition and behavior through physical, psychological, spiritual and social aspects is the coping strategy to achieve staying positive. Also, patients are guided constantly to learn how to self-care and knowledge regarding the disease to regain the passion and confidence in their lives and are then able to deal with the disease with a positive attitude.

#### **Conclusions**

Establishing sound nurse-patient relationship, providing appropriate health education and recognition, utilizing multidisciplinary consultation and mental support and encouragement to work through re-construction process with failed kidney transplant patients is to ensure patients to face the disease positively and walk out of the glooms. Thus, patients can regain quality of life and acknowledge themselves again. I hope that the article can be a reference to provide medical staff with health care guidelines in caring for re-construction patients with failed kidney transplant.

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# Development of Multidisciplinary Education for Early CKD and High Risk Patients, A Controlled Randomized Study

#### HUANG Chiu-Ching, LIN Cheng-Chieh, SUNG Fung-Chang, LI Tsai-Chung, LIU Chiu-Shong, LIN Wen-Yuan, HUANG Li-Chi, YANG Ya-Fei, LI Chia-Ing

#### Introduction

Chronic kidney disease (CKD) has become the 10th leading cause of death in Taiwan since 2010. The prevalence of CKD in Taiwan was about 11.9% among 460,000 individuals who were included in a health examination program from 1994 to 2006. The average annual medical care cost was 27.6-fold greater for a patient with dialysis than a general individual. To develop an education model for early CKD patients and to evaluate its effect on health are needed in Taiwan.

#### Purpose/Methods

This is a randomized controlled trial to evaluate the efficacy of multidisplinary clinical education program based on transtheoretical model with one year intervention in early CKD and high risk patients. All participants are assigned into experimental groups (self- and peer-assisted management) and control group (general management). Participants in self-management group are expected to emphasize on self-managed interventions which is provided by multidisplinary team. The peer-assisted management group received similar program for 3 months, then the peer oriented group activities followed.

#### Results

This is an ongoing project. A total of 411 patients were recruited and randomly assigned to the general management group (n=135), self-management group (n=138) and peer-assisted management group (n=138). We collect their information about biochemical and physiological check-ups, health promotion behavior, dietary intake status, self-efficacy and cost etc. Information on behavior changes, including smoking, chewing betel nut, medication, exercise and diet, are also collected and assessed. Those assessments have been set for the baseline, 3, 6, 12 and 18 months.

#### Conclusions

Multidisciplinary clinical education program refers to deliver self-management skill and knowledge to patients via at least two disciplines. Self-management empowers people who are early CKD or at high risk to learn to manage their chronic problems effectively. We expect to provide evidence about the effectiveness of mltidisciplinary clinical education program in early CKD further by the end of the program.

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### Health behaviors in chronic kidney disease, high-risk and healthy group

#### LI Chia-Ing, YANG Ya-Fei, SUNG Fung-Chang, HUANG Chiu-Ching

#### Introduction

Health behaviors affect the development and progression of chronic kidney disease. National Health Insurance of Taiwan provided chronic kidney disease (CKD) clinic to promote healthy lifestyle for patients, including avoidance of over-the counter medication, self medication, and unknown drugs, et al. Diabetes, hypertension or dyslipidemia patients without advance kidney disease receiving regular follow up at other clinics are recognized as high-risk patients of chronic kidney disease. The health behavior among CKD clinic, high-risk group, and healthy controls are not known.

#### Purpose/Methods

A nationwide survey of health behaviors in chronic kidney disease, high-risk and healthy people was conducted in 2009 to 2011. Study subjects of three groups were recruited from outpatients and health checkup people in 19 hospitals, including CKD group from nephrology clinic, high-risk group from cardiology clinic and metabolism clinic, and healthy group from health checkup. All subjects were interviewed by questionnaires to evaluate their health behaviors in age and gender-matched CKD, high-risk groups and health controls.

#### Results



A total of 1178 patients were identified in each group. The CKD patients took medicines more frequently than others. The CKD patients (40.6%) reported higher proportion of exercise habits than high-risk (37%) and healthy group (26.7%). However, the CKD patients still have higher proportion of current and former smoking (12.3%, 7.2%) than high-risk patients (11.5%, 5.9%) and healthy group (7.3%, 3.7%). Near 5 percent of CKD patients, 6.8% in high-risk groups, and 8.1% in healthy group use unknown drugs.

#### Conclusions

Although the CKD clinic patients have already received more in formations of healthy life style and medication compliance, only higher percentage of exercise was found among 3 groups. There still are high percentages using tobacco, over-the counter medicine, and unknown medicine. Further efforts should be down to promote healthy lifestyle in CKD and high-risk patients.

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The effectiveness of nutrition intervention on high blood phosphorus of hemodialysis patient-the example of a regional hospital in Taipei

#### **HUNG Raw-Pou, CHEN Shu-Ting**

#### Introduction

The study aimed to establish a multi-sections team and create a new low-phosphorus diet cards for hemodialysis patient in a regional hospital in Taipei in 2013.

#### Purpose/Methods

The multi-sections included the nephrologic physician, nurse specialist, dietitian and psychologist. The low-phosphorus diet cards were given to patients as the table mat which can remind them of the low-phosphorus food in daily life. The focus group was set up for hemodialysis patients in hospital and consultation, education, booklets and manuals were used as well.

#### Results

After one year intervention, the blood phosphorus (>6mg/dl) ratio for hemodialysis patient was 17.5% reduced from 28.7% which reached the significant difference.

#### Conclusions

High serum phosphate in dialysis patients who complicated with itching of the skin, heart and vascular calcification and renal osteopathy would threaten the lives and quality of life. Keeping the blood phosphorus (

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The Association between Chronic Kidney Disease and Economic status among the Elderly: A cross-sectional study in Taiwan

### WU Meng-Che, HO Chin-Yu, YU Wen-Ruey, CHEN Ming-Chen

#### Introduction

Chronic kidney disease (CKD) was widely recognized as a global health problem because of increasing prevalence. Similar phenomenon occurred in Taiwan. The prevalence rate increased from 9.3% (2003) to 11.9% (2008). The mortality and financial burden increased as the disease progressed. Several studies in the US and Europe identified socioeconomic status (SES) might be a key socio-environmental factor of CKD. The purpose of this study is to investigate the association of income status and CKD in Taiwan.

#### Purpose/Methods

We utilized the database of 2010 "Anniversary Health Exam for the Elderly." All were residents of Taipei City, Taiwan. Low-income individuals registered in Taipei Social Welfare Bureau were defined as Low-income group. Estimated glomerular infiltration rate (eGFR) was calculated as MDRD Study Equation. CKD was defined as an eGFR of less than 60ml/min/1.73m2. We applied t-test for Continuous variables, chi-square test for category variables, and multivariate logistic regression model for the impact of income status.

#### Results

We included 29,083 individuals, 1,163 in Low-income group and 27,960 in Non-low-income group. In the aspect of background data, the former was significantly older, men-predominant, living singly and higher smoking prevalence. In comparison of the non-low-income group, the low-income group had higher ratio of CKD, hyperuricemia, and proteinuria. However, low-income group was not significantly contributed to CKD, hyperuricemia, and proteinuria in multivariate logistic regression model.

#### Conclusions

We included 29,083 individuals, 1,163 in Low-income group and 27,960 in Non-low-income group. In the aspect of background data, the former was significantly older, men-predominant, living singly and higher smoking prevalence. In comparison of the non-low-income group, the low-income group had higher ratio of CKD, hyperuricemia, and proteinuria. However, low-income group was not significantly contributed to CKD, hyperuricemia, and proteinuria in multivariate logistic regression model.

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### A prediction model for the risk of chronic kidney disease progression

#### WU Mei-Yi, WU Yun-Chun, WU Yi-Lien, CHANG Po-Ya, Yu-Mei LIN, CHIOU Hung-Yi, LIN Yuh-Feng

#### Introduction

Chronic kidney disease (CKD) is a health burden for the general population and an increasing public health issue. Prevalence is estimated to be 8–16% worldwide. We designed a cohort study to construct a predictive model for the kidney-disease-progression in Taiwan. The goal was also to use variables routinely measured in patients with CKD to construct an easily-implemented model to predict CKD progression. We were especially interested in models that rely solely on information available to a clinical laboratory, enabling reporting the risk of CKD progression with clinical results.

#### Purpose/Methods

The study cohort included patients aged №18 years diagnosed with CKD between 1998 and 2013 with follow-up (N = 4256). CKD is defined as abnormalities of kidney function, present for > 3 months. 1947 individuals (45%) developed CKD progression, defined by a decrease of glomerular filtration rate 2.5 mL/min/1.73 m2 per year. All the subjects were followed-up from the date of cohort entry until they developed CKD progression or until the end of 2013. We used a combination of clinical guidance and model selection to determine variable selection. We analysed the univariate associations between the independent variables and CKD progression using Cox proportional hazards, variables not associated with CKD progression were excluded from further analyses. Multivariate Cox proportional hazards regression models was tested. The discrimination of the Cox regression model was estimated using AUC.

#### Results

There were 2496 men and 1760 women at baseline in the cohort. At follow-up, 45% (n=1947) had developed CKD progression. In the progression group (N=1947), the mean age was  $62.14\pm14.45$  years. Diabetes mellitus (DM), smoking, elevated fasting sugar and hypertriglycemia were significantly associated with CKD progression (P<0.05). The most fitted model for CKD progression included age, DM, fasting glucose, and proteinuria. (AUC = 0.72).

#### **Conclusions**

We evaluated predictors of CKD progression among individuals in the community and constructed a clinical model to predict the incidence of CKD progression. This prediction tool which may help to identify CKD subjects at risk of progression is routinely obtained history and laboratory examinations. It could be easily integrated into a laboratory information system. Improved clinical prediction is a cornerstone of individualized medicine. The prediction score may be useful in identifying patients at risk.

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Model of Mental health service for incenter hemodialysis and peritoneal dialysis patients: a survey study.

#### YANG Meng-Ju, LIN Chi-Chin, HUANG Po-Tsang

#### Introduction

In-center hemodialysis patients suffer from poor quality of life for they have to receive 4-hour treatments in hospital 3 times per week, which tax their mind and energy; and so do peritoneal dialysis patients for they have to exchange the fluid about half-hour at home or at work 4 to 5 times per day. Psychosocial problems can be observed in some dialysis patients at times. Considering their different medical limitation, clinical psychologists provided two models of mental health service.

#### Purpose/Methods

For in-center homodialysis patients, the service was routinely scheduled during the homodialysis. For peritoneal dialysis patients, the service was signed up in their will. In both, clinical psychologists provided (1) a lecture about increasing self-awareness and knowledge of the importance of emotions, (2) an evaluation of self-reported psychological health, and (3) an introduction to the clinical psychological resources. The survey for psychological evaluation is Negative Emotion Questionnaire (NEQ), including 9 self-reported items about cognitive and emotional maladaptation.

#### Results

Participants were recruited from the dialysis ward in National Taiwan University Hospital. Fifty in-center hemodialysis patients received the service and 31 patients (62%) completed the survey. The average scores of NEQ was 20.23 (SD = 8.99) and 38.71% participants scored over the cut-off point (22). Nine peritoneal dialysis patients attended actively and completed the survey. The average scores of NEQ is 27.33 (SD = 8.15) and 66.67% participants scored over the cut-off point.

#### Conclusions

The two groups were quite different in the rate of participation and completion. The service for in-center hemodialysis patients was general but limited by ward environment, while the service for peritoneal dialysis patients facilitated patients' motivation to get awareness of emotional distress. The NEQ score in peritoneal dialysis participants was higher than in in-center hemodialysis participants and it might be related to higher disclosure of emotions or motivation to receive mental health service.

#### Comments



The diversity of dialysis patients is high in psychosocial distress and their needs for mental health services vary. To provide primary mental health service and to screen the potential patients in need is the first step for further psychological service. On the other hand, customized mental health service is crucial to treat patients who are highly motivated to seek help for the special psychological issues. These two models of mental service could be complementary in promoting psychological health.

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#### A Meta-analysis on the Effect of Handgrip Exercise upon Vascular Diameter in Renal Failure Patients

#### YU Chin-Ching, SHIH Ming-Huang, CHIEN Hui-Tsu, WU Feng-Mei, KANG I-Ching, CHANG Chia-Chu, CHIOUS Ping-Fang, CHIANG Shang-Chi, CHANG Mei-Ling

#### Introduction

Dialysis is a treatment aimed at maintaining renal function in people with renal failure. The Taiwan Society of Nephrology has reported that there are 66,509 people in need of dialysis, with about 90% receiving maintenance hemodialysis. Vascular access is necessary and arteriovenous fistula is an optimal vascular access to hemodialysis patients. An important way to maintaining fistula functions is through handgrip exercise, but various types of exercise may have different effects on arteriovenous fistula functions.

#### Purpose/Methods

The results are therefore somewhat inconsistent and not entirely conclusive. The applicable research was systematically gathered and reviewed by searching for publications between 1966 to 2013, from 6 different databases - The Cochrane Library, EBSCO, CINAHL, PubMed, Chinese Electronic Periodical Services, and Taiwan Periodical Literature System database. The quality of studies was assessed standardized critical appraisal instruments based on the quality checklist tool of Joanna Briggs Institute, there are 13 of studies fit the criteria.

#### Results

All data were calculated by Comprehensive Meta-Analysis version 2.0. The results demonstrated that handgrip exercise could improve vascular diameter, thus achieving moderate positive effects (standard mean difference 0.559, 95% CI  $0.405 \sim 0.713$ ).

#### Conclusions

This study is a meta-analysis on the effect of exercise in renal failure patients. It indicated that patients suffered from renal failure do exercise every day tend to increase vascular diameter.

#### Comments

In this study, various forearm exercises were also identified and proposed. We recommended that those exercises were then posted on Bulletin Boards in order to establish guidelines for nursing care and clinical practice

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# Public and nonprofit funding for a community-based health promotion project on CKD prevention

### WU Yi-Lien, WU Mei-Yi, LIN Chia-Chin, WU Chih-Hsiung, CHIOU Hung-Yi, LIN Yuh-Feng

#### Introduction

Chronic kidney disease(CKD) has become a prevalent comorbidity in the past 10 years. CKD knowledge was generally poor in general population. There is less empirical information addressing educational efforts targeted toward general population. The purpose of kidney disease prevention foundation (KDPF) is providing health information, patient education, and the aid of a support group.

#### Purpose/Methods

Kidney Disease Prevention Foundation had played a key role in providing social support services and CKD health information to general population in community. These services tried to minimize the impact of the CKD by early detection and prevention. The organization holds community-based health education and checkup program regularly.

#### Results

From 2012 June to 2013 November, the KDPF provided 25 activities for CKD education promotion and screen examination. The 1804 participants (36.8% male) received blood and urine examinations. All participants completed a questionnaire including personal basic data and habits. The mean age was 59.02 years, 252(13.97%) suffered from CKD. Only 40(2.2%) of participants in the cohort were aware of their disorder. 235 (10.89%) in 1804 participants had alcohol drinking, and 235(10.89%) participants were currently smokers of those who responded to administered questionnaires. The prevalence of current and former betel nut chewing was 6.07% in our cohort. 899(40.06%) of participants had hyperuricemia, 648(43.09%) had dyslipidemia, and 433(29.04%) had elevated fasting sugar. All the abnormal reports were informed by KDPF.

#### Conclusions

Community-based organizations require a significant level of funding from private sources. Promotion of CKD recognition through the public and nonprofit funding knowing their glomerular filtration rate and kidney health education is crucial to attenuate the global epidemic risk factors of CKD.

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### Session P1.9: Approaches towards cancer screening

Movement to change the policy type cancer screening from any type cancer screening

#### **ICHIKAWA Atsushi**

#### Introduction

The most significant force to participate in cancer screening visit an indifferent people to cancer screening is to jointly with residents

#### Purpose/Methods

The doctor encouraged delivered directly to member home colon cancer container to members of the Friends of health in 1992, Offering free screening gastric cancer risk in 2014, was also staged a picture-story show as consultation campaign

#### Results

Colorectal cancer screening increased the number to 1,000 from 700 the previous year reviews the example of fiscal 1993 Toyo clinic. Adopted in local government screening. 2,700 in the whole corporation of 2014 gastric cancer risk screening, early cancer detection rate was higher than the day-to-day practice.

#### **Conclusions**

An important health prevention activities, the most important enough to provide information to individuals, reducing the copayment, and consultation campaign, is a collaboration with local residents. The Corporation has established a method to over 85 years.

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#### 2013 Convenient Cancer Screening Mobile Network of Zhongshan District, Taipei City

#### CHANG Ho-Ching, CHANG Ho-Ching, KAO Yun-chi

#### Introduction

In 2012, malignant neoplasms topped the 10 leading causes of death in Zhongshan District for the 31st consecutive year, accounting for 30.45% of all deaths. Being busy working, residents did not have the time to undergo cancer screenings; hence, the Convenient Cancer Screening Mobile Network in the district was launched between January and November 2013, having screened 36,184 individuals totally. Hopefully, through diverse, convenient, community-based screening resources, the public's willingness to undergo cancer screenings can be increased.

#### Purpose/Methods

Between January and November 2013, the Zhongshan District Health Center associate with community, medical and industry organizations to jointly provide cancer screening services for the targeted people. The Health Center organized volunteers to urge targeted people to undergo cancer screening and to make appointments for them. The center also incorporated with Mackay Memorial Hospital, the department of civil affairs and 32 workplaces to provide cancer screening services for the district's residents and employees. Furthermore, the center would arrange appointments and referral services for positive cases.

#### Results

In all, 36,184 individuals underwent cancer screenings (7,814 individuals screened for cervical cancer, 7,243 individuals for breast cancer, 11,554 individuals for colorectal cancer, and 9,573 individuals for oral cancer), and a total of 66 individuals were diagnosed and confirmed of cancer (8 for cervical cancer, 28 for breast cancer, 20 for oral cancer, and 10 for colorectal cancer). Zhongshan District Cancer Screening Map. Volunteers used the map to urge residents in the district to undergo cancer screening and to make appointments, and residents also may make appointments on their own via the map. (2) Convenient Special Clinic for Cancer Screening -Mackay Memorial Hospital set up exclusive special clinics for the district's residents. (3) Where to Run, Cancer Boy? One Borough at least One Screening sessions. (4) Health Little Helper for Cancer Screening - Medical staff of corporations was mobilized, to screen individuals who were at high risk for oral cancer. Compared to 2012, it was found that the numbers of people undergoing screenings for the 4 types of cancers mentioned above had all increased significantly following the launching of the Convenient Cancer Screening Mobile Network in the district (23% increase for colorectal cancer, 4% increase for breast cancer, 3% increase for cervical cancer, and 2% increase for oral cancer).

#### Conclusions

The increasing of cancer screening rate may reflect the increasing willingness of the people to undergo screening and will also reveal that the Convenient Cancer Screening Mobile Network may work in Zhongshan District.

#### Comments

The Health Center will continue to develop convenient cancer screening services that meet public needs. Aside from hardware,



software perspective should also be emphasized. How to promote the good health behaviors by activate regular screening and conduct clinic visits for positive finding is the direction that the Health Center still strives for. It is hoped that, through regular screening and early discovery and treatment, the goals of cancer prevention can be achieved.

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#### Results and Response to Mental Screening in Different Cancer types Patients: 20 months study

### KUO Chun-Ya, CHAN Ching-Fang, CHEN Vincent Chin-Hung

#### Introduction

Psycho-oncology has been popular for its importance and meaning to the care of cancer patients. Several studies show that cancer patients are at increased risk of mental illness, and the psychological burden greatly affect the life quality and disease outcome among cancer patients. However, few studies showed the differences of psychological symptoms and severities among each types of cancer patients. In this study, we investigated the psychological outcomes of the routine mental screening among each types of hospitalized cancer patients.

#### Purpose/Methods

Firstly, three items of The Patient Health Questionnaire-9(PHQ-9) and Distress Thermometer were routinely used to screen cancer patients admitted from April 2012 to December 2013. Patients with high scores of depression, suicidality, and distress level were included to the second stage. In second stage, after Mininternational Neuropsychiatric Interview(MINI), patients with either major depressive episode , suicidal risk, or high distress level were referred for the further interventions monthly. The interventions terminated when patients reached no suicidal risk, the distress level less than 5, and remitted of depression.

#### Results

In the first stage, we screened a total of 5659 cancer patients (50.5% male; mean age: 59.1) and 10.3% (number of 582) was included in the second stage of clinical interview. After MINI interview, 281 patients referred to the psychiatrists for further clinical intervention. Among the whole cancer types, head and neck cancers had highest prevalence needed for further clinical interventions. During the study period, there were 178 patients (63.3%) terminated with improved conditions after mean 3.6 months followed up. Breast cancer and ovarian cancer patients had better response after interventions (80.9%).

#### **Conclusions**

The results showed 5.0% cancer patients reached the severity of depression or suicidality for further intervention. Especially the

head and neck cancer patients had 10.1%, which is twofold of average prevalence, included to have further treatment. The further interventions including monthly supportive psychotherapy and some portion of medical treatment at the same time are effective for those cancer patients with psychiatric symptoms. The different psychological outcomes and response among each cancers might related to the daily function change after cancer therapy, and the further study is warranted.

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# Investigation of the effect of popularization for community cancer screening in Pingtung, Taiwan

#### LIN Pei-Ching, CHEN Wen-Hsu, CHENG Ya-Ai, HSIAO Lung-Chen

#### Introduction

In Taiwan, cancer occupied the first rank according the Taiwan death reasons over thirty years. To find and treat cancers in early stage, Taiwanese NHS supports cancer screening for community residents. Colon, oral, breast and cervical cancer are included in screening. Screening may reduce cancer morbidity since treatment for earlier-stage cancers is often less aggressive than that for more advanced-stage cancers.

#### Purpose/Methods

To popularize cancer screening and understand the effect factors of aspiration of screening in community residents, the purpose of this study is to investigate the reason of participation of cancer screening from May to October 2013 in Pingtung, Taiwan.

#### Results

As the result, there are five screening included in this study. The number of participators are 111, 56, 115, 100, and 72, separately. After interviewing the participators, the study finds the first rank participating reason is relatives and friends recommended. The other reasons for participation are included; hospital good image, hospital marketing, female staff, smooth screening process and good service, design and security, and medical post publicizing.

#### Conclusions

Following the residents feeling, we can go in community and marketing cancer screening to enhance the acceptance and participation of residents. This study support an reference for popularizing cancer screening.

#### Comments

For people health, we can use some marketing projects to increase the participating proportion of community cancer

screening. And it is suggested that early find and early treatment to keep cancer away.

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# Early Screening, Early Detection, Early Diagnosis, Early Treatment – Cancer screening in Taipei hospital

#### YANG Shih-Hsien, LIN Su Ching, LIN Shoei-Loong

#### Introduction

Cancer has been the leading cause of death for 30 years in Taiwan. Because the cost of treatment of cancer and its complications is increasing year by year, how to detect cancer earlier becomes an important issue. According to the statistic data, colon cancer, breast cancer, oral cancer and cervical cancer are seperately 3rd, 4th, 5th and 10th cause of cancer death and they can be easily detected by screening. Health Promotion administration started the policy of " 4 cancers screening" in 2010. We hope the policy can detect cancer earlier, treat cancer easier and let our people healthier.

#### Purpose/Methods

According to the policy since 2010, the screening population and criteria are 50-75 years old for colon cancer every 2 years, 40-70 years old for breast cancer every 2 years, 30 years old above with history of smoking and betal nut chewing for oral cancer every 2 years, 30 years old above for cervical cancer anually. At the first stage, we screen people in the hospital who visit our clinics or admit to our wards by the hint of our information system . At the second stage, we go to the comminuty actively to look for people who should by screened. If people are screened positively, we inform them back to our hospital for further evaluation such as colonfiberscopy, breast sonography or MRI.

#### Results

From 2010 to 2013, we screen 25980 cases of colon cancer and the positive rate is 7.56% (1963/25980). The confirmed cases of colon cancer are 52. we screen 16407 cases of breast cancer and the positive rate is 3.07% (503/16407). The confirmed cases of breast cancer are 51. We screen 14235 cases of oral cancer and the positive rate is 13.00% (1851/14235). The confirmed cases of oral cancer are 25. We screen 7858 cases of cervical cancer and the positive rate is 2.66% (209/7858). The confirmed cases of cervical cancer are 40.

#### Conclusions

We screen the common cancers in Taiwan for early detection and treatment of cancer to decrease the occurance and cost of treatment of cancer for 4 years. In the beginning, the superintendent encouraged our staffs to be screened then we could spread out the concept of cancer screening. Finally, we can

go into the community to let more and more people to be screened. When we go to the community, not only performing the policy of "4 cancers screening", but also we teach people the knowledge of cancer prevention and how to live healthier by diet and exercise. That is what a health promotion hospital should do in the community.

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#### A project to improve the Screening Rate of mammography for Breast Cancer

#### AN Feng-Chun, WANG Hui-Yi

#### Introduction

The project aimed to enhance the women mammography screening rate. In 2011 the Hospital mammography screening rate of Health Promotion Administration, Ministry of Health and Welfare screenings volume target of 26.2% for lowest peer institutions. For this reason, it inspired the establishment of the task force.

#### Purpose/Methods

We used the Questionnaire to collect the reason. And analysis result were: afraid of the pain, the body is exposed feeling shy, do not know this information, too busy no time, feeling the trouble, and living places too far away.

#### Results

Above all, we adopted solutions include: using of regularly updated information, mammography-related posters publicity, experience sharing cases, increasing separate window. In addition, we also offer volunteer to guide or inspect clothes to wear off the steps.

#### Conclusions

After a project to improve mammography screening over the target number set by National Health Board, screening rate of 60.3%, our target rate reached 150%. Moreover, mammography screening rate increase, to reach the target of government policy, reduce breast cancer mortality, improvement of project objectives. Overall, it promoted of women for breast cancer prevention and treatment of early detection and early treatment of the concept.

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Application of the health belief model to explore the use of the relevant factors of mammography screening for women.

### CHEN Chiu-Chen, CHIANG Pei-Heng, CHENG Jung-Feng

#### Introduction

The incidence of breast cancer in Taiwan rose sharply in recent years, accounting for female cancer incidence in second place. Since 2004 National Health Insurance Bureau promoted women aged 50-69 free mammography screening for breast cancer screening as an important measure.

#### Purpose/Methods

The purpose of the application of health belief model to explore the use of the relevant factors of mammography screening for women, divided into two hospitals and community groups 175 and 191 people each survey, a structured questionnaire of basic information, lifestyle and health, and the health belief model, "perceived susceptibility", "perceived seriousness", "perceived benefits of taking action", "perceived barriers of taking action" conducted for four respondents.

#### Results

In terms of basic information in order to "age", "education", "religion" and "monthly income" significantly related; lifestyle places "meat and vegetarian diet", "smoking habit", "drinking habits" have Different differences; health status as "family history of breast cancer," "regular health checks' carried a higher probability of screening mammography; health beliefs in places" morbidity of "two factors" of interest "and so on with a clear related

#### **Conclusions**

Patients with history of breast medical institutions can enhance archiving track disease management, regular screenings, community residents to increase convenience or integrated screening and willingness to improve the effectiveness of screening.

#### Comments

The study also found that older age, higher education level screening utilization, and breast cancer incidence in Taiwan mean age of about 47 years, ethnic or recommendations on screening and health education do considerations.

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#### An Overview of The Utilization of Mobile Screening Mammography Services Amongst The Residents of Taipei City

#### **HUI Mei**

#### Introduction

The Anderson Model was applied to identify factors determining the use of mobile screening mammography amongst women living in Taipei city. Feedback questionnaires were distributed to women who participated in screens between January 2013 and November 2013. 330 questionnaires were collected and 320(97%) were viable

#### Purpose/Methods

The purpose of this study is to give a demographic overview of who women utilized mobile screening mammography services in Taipei city. Surveying of their preferences identify factors that could improve future screening programs.

#### Results

320 women participated in this study. The mean age was 52±3);314 women( 98%) were married. 224 (70%) women resided in New Taipei City while the remaining 96(30%) lived in Taipei City. The findings of this study: (1).Importance of cancer screening: 266 women (83%) thought that cancer screening was very important;55(17%) thought that it was important.

#### Conclusions

1. Breast cancer is becoming one of the primary causes of mortality amongst women. Screening found that most women were diagnosed at Stage II of the cancer hence demonstrating that screening via mammography still needs to be better implemented. The simultaneous combination of Mammography with pap smear screens would likely increase the willingness to screen. In addition, most women prefer female doctors; this is another factor determining the wiliness to screen.

#### Comments

5. Considering the importance of setting up screens at convenient locations for the women, sometimes it is necessary for the buses to be near roads( especially in New Taipei City, where many of roads are small); Precautions will be incorporated into future screening plans to address the problem of safety.

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Evidence-based Review of The Diagnostic Accuracy of Self-sampling HPV DNA test and Feasibility in

### Promotion of cervical cancer screening

### TSENG Chih Hao, LIANG Shih Peng, CHEN Mei Ying, LIAO Chung Chi

#### Introduction

Approximately 1680 new cases and 165 deaths of cervical cancer reported in Taiwan each year. Early detection of high risk HPV is important for identifying women at risk for developing cervical lesions, yet most women with cervical cancer have not participated in Pap-smear screening. Self-sampling may be acceptable modalities to increase screening attendance rate. Here we sought to evaluate whether Self-HPV testing may serve as a primary cervical cancer screening and feasible method by implementing an EBM approach.

#### Purpose/Methods

A PICO(P: HPV; I: self-sampling; C: PAP-smear; O: diagnostic accuracy) was formed. The P, I, O (HPV AND self\* AND diagnostic accuracy) was used to search Cochrane Library and PubMed. One relevent SR/Meta-analysis(2012, China) was subsequently chosen for critically appraisal: Of 13004 participants received Self-HPV testing, Physician-HPV(physician-collected) testing, VIA(visual inspection with acetic acid), and LBC(liquid-based cytology) were included, screen positive women underwent biopsy-confirmed (as gold standard) cervical intraepithelial neoplasia grade 2 or more severe (CIN2+) and CIN3+.

#### Results

Diagnosed as CIN2+: 507 (3.9%), CIN3+: 273 (2.1%), cervical cancer (0.3%). 1.Self-HPV testing $\rightarrow$ CIN2+ detection: sensitivity, 86.2%; specificity, 80.7%. CIN3+ detection: 86.1% vs 79.5%. 2.VIA $\rightarrow$ CIN2+ detection: sensitivity, 50.3%; specificity, 87.4%. CIN3+ detection: 55.7% vs 86.9% (all P < .001). 3.LBC $\rightarrow$ CIN2+ detection: sensitivity (80.7%, P = .015); specificity(94.0%, P< .001). CIN3+ detection: (89.0%, P = .341) vs (92.8%, P < .001). 4.Physician-HPV $\rightarrow$ CIN2+ detection: sensitivity, 97.0%; specificity, 82.7%. CIN3+ detection: 97.8% vs 81.3% (all P < .001).

#### **Conclusions**

The sensitivity of Self-HPV compared favorably with LBC, superior to the sensitivity of VIA, though less specific, Self-HPV moderately agrees with Physician-HPV testing in general . There're 1.6 million women aged 36 and above haven't participated PAP-smear screening for over 6 years in Taiwan. Self-HPV cervical cancer screening promotion should be based on the verified evidence of adequate diagnostic accuracy as a screening tool and feasibility of Self-HPV testing to increase cervical cancer screening participating rate.

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### Enhance a regional hospital outpatient Pap Smear Screening rate

#### YU Shu-Ru, HUANG Lu-Hsia

#### Introduction

The purpose of this project was to increase the local area women Pap smear screening rates. The screening rate for female patients in our hospital was even lower at 12.1% in 2011. As medical staff in a hospital, we have the responsibility to promote the health our residents. Therefore, we established of the task force.

#### Purpose/Methods

A structured and unstructured questionnaire was administered to analysis unwilling reason. The low rate of Pap smear screening results indicated that the body is exposed feeling shy, do not know this information, too busy no time to do so, afraid of male doctor, and psychological factors.

#### Results

The situation has significantly improved after we made adjustments including: reduction of processing time, convenient home services, providing a good explanation medical staff and planning education program for women. The Pap smear screening rate increased from 12.1% to 15.3%.

#### Conclusions

In Taiwan, conservative traditional culture still impacted local area women. We used limited resource to service residents that we believed our Pap smear screening rate that a little bit of progress was similar to the situation in other regions hospital wanted to learn. Overall, for the sake of health, Pap smear screening was a good way to helpful for the prevention of cervical cancer.

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### Search for cancer cells in urine: An equity approach

## GARDINI Giorgio, FERRARI Marisa Vanna, PRATISSOLI Rita, TAMAGNINI Ione, CERULLO Loredana

#### Introduction

The replacement of out-of-date equipment, carried out in order to improve the capability of detecting cancer cells in urine, gave an opportunity to reshape the patient pathway, according to a "non-discriminating approach, thus improving cooperation with Reggio Emilia Local Health Authority. The previous pathway involved patients delivering a urine sample to the Reggio Emilia Hospital Pathology Unit, every morning for three days in a row.



This procedure of access was not respectful for all patients. Out of 3,606 patients, who had access in the years 2010 and 2011, 58% was over 65 years old, on average. Most of them were old people, not self-sufficient, coming from the outskirts of the Reggio Emilia Province, thus requiring to be accompanied by a relative/caregiver.

#### Purpose/Methods

In order to find a solution to this problem, non only the economic and good clinical practice aspects but also equity were taken into account. It was decided to buy equipment which, although more expensive than other equipment, could allow the simultaneous delivery of the 3 urine daily samples. Moreover, distribution points both for urine containers and for sample collecting were activated all over the Province of Reggio Emilia, in order to grant patients access near their permanent address. As a consequence, medical reports were sent to the distribution points.

#### Results

Monitoring the results, it came out that all patients living in the Province but not in Municipality of Reggio Emilia made use of the provincial distribution/collection points, instead of going to Hospital Pathology Unit. This led to reduced travelling, with a recorded 66% decrease in travelling (1250 journeys). Operators working for the territorial distribution points reported a high degree of satisfaction on the part of the patients.

#### Conclusions

Reduced travelling means reduced discomfort for patients, a reduction in environmental pollution due to traffic congestion, as well as a decrease in hours of paid leave requested by those who accompany their not self-sufficient relatives. These changes allowed a higher degree of consideration for the patients' differences and an opportunity to give all of them not only equal opportunities of access but also equal quality of health services.

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#### Integration of Hospital and Community for Health Promotion-Cancer screening for Volunteers of Tzu-Chi Foundation

#### CHEN Cheng-Yu, LEE Wan-Chen, LIU Nai-Syuan

#### Introduction

Cancer has become the leading cause of death in Taiwan since 1982, and the cancer death numbers are still climbing. In 2012, colorectal, breast, oral and cervical cancer caused about 23.6% cancer deaths. Taiwan government not only encourages people to live in healthier lifestyle, also promotes health examination to detect diseases in early phase, especially cancer with evidence-

based screening tools. We followed government policy and provided screening with effective follow-up system to protect health of volunteers of Tzu-Chi Foundation.

#### Purpose/Methods

To collaborate with Tzu-Chi Foundation, Taipei Tzu-Chi Hospital held six health examination activities, which included cancer screening, for 810 community volunteers from March to September 2013. We arranged iFOBT to detect colorectal cancer, mammography for breast cancer, oral exam for oral cancer and Pap smear for cervical cancer. Hospital staff actively participated in these medical services. In addition to health exam, health consultation and education were provided by the family physicians.

#### Results

228 persons received iFOBT and 12 had positive results. 182 persons received mammography and 11 had abnormal finding. 790 persons received oral exam and only 1 had oral mucosal lesion. 455 persons received Pap smear and 7 had abnormal cytology report. We referred them for further evaluation and confirmed 4 cancer patients (2 colon and 2 breast cancer). We arranged them for adequate treatment and kept following up by hospital staffs and volunteer managers till completing treatment courses.

#### Conclusions

The first mission of a health promoting hospital is to empower people getting healthier. The second mission is to detect and to treat diseases as early as possible to limit disability. Through proactive disease screening and careful follow up with cooperation of hospital and community for the community volunteers, not only could prevent from disability but also prevent from death. Early diagnosis of serious diseases such as cancer is particularly valuable.

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#### The effects of Cancer Prevention Knowledge Education Program on Chiayi Metropolis Community

#### HSIEH Ching-Hsiang, CHOU Hui-Lin, CAI Li-Hua

#### Introduction

The health education program is an important intervention provided by nurses, to help patients in self care and health promotion information or skills. The purpose of this study is to examine the education program on knowledge and satisfaction of cancer.

#### Purpose/Methods

Pre/post-test design was used in one group of subjects this study. A total of 664 subjects were collected in this study. We carried out a structural education program regarding cancer prevention knowledge in a local hospital of Chiayi metropolis in Taiwan.

#### Results

The statistical results revealed correct rate of knowledge was 94.67% after education program was higher than that of 92.18% at baseline. The degree of satisfaction after education program was correlated with education level (F=3.3039, p<0.05). The education program had significant effects on cancer prevention knowledge and satisfaction of Chiayi metropolis community.

#### **Conclusions**

The cancer prevention education program had significant effects on knowledge and satisfaction of citizens and their family of Chiavi metropolis .

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# Session P1.10: Responding to COPD, osteoporosis and other chronic diseases

The effects of pulmonary rehabilitation on calf circumference and COPD assessment test in patients with chronic obstructive pulmonary disease

#### CHUNG An Chi, GUO Su-Er, HSIAO Yi Fen

#### Introduction

Pulmonary rehabilitation (PR) is successful in improving activity tolerance and health status. Low body mass index (BMI) is a critical predictor of mortality in patients with chronic obstructive pulmonary disease (COPD). However, there are not too many studies investigating these interactions between health status, BMI, and pulmonary rehabilitation. The COPD assessment test (CAT) is a simple instrument for assessing health status for COPD patients. Calf circumference is an indicator of body mass index.

#### Purpose/Methods

This cross-sectional study aimed to examine the impacts of PR on CAT and calf circumference. The sample included 18 patients with moderate-to-severe COPD (males, 88.9%, 70.4±10.4 yrs in age) recruited from a 20-session PR program in Taiwan. The PR program includes patient education, breathing retraining, and exercise. All participants exercised for 35-40 minutes with 50-75% of maximum heart rate. Mixed effect model for repeated

measure was conducted to evaluate the differences of calf circumference and CAT between pre- and post-PR.

#### Results

After adjustment for potential confounders, which included age, gender, disease severity, the improvements in calf circumference, BMI, and CAT were found (p< 0.001, p< 0.02, & p< 0.001, respectively) at post-PR, compared to pre-PR.

#### Conclusions

Among patients who completed the PR program resulted in significant and clinically relevant changes in BMI, calf circumference, and CAT. Calf circumference and CAT are critical and valuable tools to evaluate the effects of PR program.

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# Effect of Upper Extremity Training on COPD Patient with Anxiety and Dyspnea

### PAN Mei-Ling, YU Chin-Ching, LIU Yi-Fang, CHEN Chiu-Chen, WU Chia-Ju

#### Introduction

Dyspnea is most apparent symptom appeared for Chronic obstructive pulmonary disease (COPD). 90%-95% COPD patient at the later stage will experienced dyspnea, result in anxiety, lower in upper body mobility, and decreasing in quality of life. Patient who fought with such disease at the long periods of time will appeared to have psychological, and behavioral changes.

#### Purpose/Methods

Discuss how does upper extremity training affect COPD patient dealing with symptoms of anxiety./Through using the systematic periodical feedback method, develop exercise training and guidelines for in- patient COPD, both upper limbs carry 1 Kilogram of stand bag, lift up around 45 second, lift down 15 second, repeat that procedure back for 5 minutes, 4 times a day. Using the Borg physical chart and visual analogue scale (VAS) 3days before and after training for dyspnea and anxiety appraisal.

#### Reculto

Using in-hospital COPD patient with acute symptoms between age of 51-71 as main case study for upper extremity exercise training program. Through series of analysis (before and after using upper extremity exercise training program), dyspnea symptom has been decrease from 64% down to 36%; overall anxiety symptoms has been decreased from 46% down to 34%.

#### Conclusions

Upper extremity exercise training can improve anxiety and dyspnea symptoms on COPD patient, provide in-patient care for



the COPD patient dealing with such acute symptoms, effectively lowering symptoms of dyspnea and anxiety.

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# Improvement of nutritional status in multidrug-resistant tuberculosis patients by nutrition intervention

### FU Chao-Yang, HSIAO Yu-Tuan, CHIEN Jung-Yien, CHIEN Shun-Tien

#### Introduction

Several studies have examined the effect of tuberculosis on nutritional state and demonstrated extensive nutritional depletion at the time of diagnosis. Previous studies have indicated that the structure and function of the respiratory muscles will be affected by nutritional disorder in tuberculosis patients. The relationship between malnutrition and lung dysfunction in tuberculosis patients is the most important issue in clinical

#### Purpose/Methods

This study applied the effect of nutrition intervention on Multidrug-resistant tuberculosis (MDR-TB) patient's nutritional status in a southern hospital. In this study, nutritional therapy for 25 patients of MDR-TB have been evaluated for 6 months. To determine the effects of nutritional therapy, the levels of hemoglobin, hematocrit, albumin, lymphocyte count and body weight were analyzed in 25 patients of MDR-TB.

#### Results

The results indicated that the levels of hemoglobin (from 12.8 to 14.7 g/dl), hematocrit (from 39 to 42.9%), albumin (from 3.8 to 4.4 g/dl), lymphocyte count (from 1474 to 1740mm3) and bodyweight (average 3kg increased) were significantly increased after nutritional therapy.

#### **Conclusions**

Taken together, our results provide a novel nutritional support strategies for tuberculosis patients in response to malnutrition.

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## Community Promotion of Osteoporosis Screening and Treatment in tawian

### LI Yan-Chi, MAO I-Chieh, WANG Yu-Hsiung, TU Shih-Te

#### Introduction

Osteoporosis is the second most prevalent disease worldwide. Osteoporotic fracture can cause huge medical burden and high mortality. Researchers have indicated that less than 1/3 of osteoporotic patients receive treatment and care. In our study, we tried to identify that if serial group health educational seminar can improve osteoporosis care.

#### Purpose/Methods

This study examined the methods used by hospitals dedicated in osteoporosis. These included educational seminars, ultrasound screening in the community for high-risk population and referral for DXA examination. The patients diagnosed with osteoporosis received further management, including dietary, exercise and self-care instructions. Case management system was constructed to improve adherence, strengthen ability and ultimately enhance osteoporosis prevention.

#### Results

37 sessions of community educational seminars and ultrasound screenings were conducted during January to September 2013, totally 931 participants. During the initial screening, 91 persons yielded a T score < -2.5 and 32 (35%) patients received referral for DXA. Through these promotions, 559 patients aged more than 50 received DXA examinations of their own accord and 232 (42%) were diagnosed with osteoporosis. 349 new cases were enrolled in case management system for osteoporotic patients and drug treatment rate was 92.5%.

#### Conclusions

In this study, we found that serial group health educational seminar focus on high risk population in the community was more acceptable by the public. Furthermore, the construction of referral procedures and the inclusion of DXA examination as a health examination item allowed the high-risk can crease the examination and treatment among osteoporosis population. The case management system facilitated patient management, care, follow-up, and treatment, as well as increased the patients' willingness to receive treatment.

#### Comments

With progressive aging of the country, the hip fractures rate will peak to 50% in Asia by 2050 In Taiwan, around 452,000 women over 50 years old are expected to suffer osteoporosis, and this number is rising gradually. Osteoporosis prevention education, reduction of disease prevalence, early diagnosis, appropriate treatment, and provision of comprehensive and systemic education and medical care for general population effectively increased treatment willingness, prevented fracture, and improved patient's quality of life.

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#### BMD Report Combined with FRAX Promotes the Recognition of Bone Mineral Insufficiency for Patients

### WANG Yuh-Feng, CHUANG Mei-Hua, LEE Ching-Chih, LAI Ning-Sheng

#### Introduction

Bone mineral loss is a long-lasting and silent process. Successful treatments of osteoporosis depend on appropriate medications, compliances, and life styles (i.e., diet and excise). However, recognition of the mineral insufficiency status by patients themselves is also important. FRAX is constructed by WHO as a self-evaluation system for fracture risk. Unfortunately, not so many patients know or conduct this evaluation by themselves. This retrospective analysis was performed to identify the benefits of a BMD report combined with FRAX for patients.

#### Purpose/Methods

All in- and out-patients' T-scores after bone mineral density (BMD) studies were collected from January of 2010 to October of 2013 from a regional teaching hospital in southern part of Taiwan. All of the BMD reports also combined with FRAX results. An analysis of the difference of the T-score of lumber spine for these patients was assessed. Statistics was performed via SPSS 17.0.

#### Results

A total of 7,432 BMD studies of the lumbar vertebrae were collected from 3,804 patients. 236 patients had received 4 times of BMD studies within this period; one/fourth patients (55 patients) were randomized collected for further analysis. The interval between two BMD studies was 6.71±0.32 months. Results show that patients' T-scores of the lumber spine were continuously to increase (p<0.05), which indicated that the good bone mineral enhancement in these patients.

#### Conclusions

Patients recognize their own disease status is noteworthy for disease control, especially for a silent and chronic disease such as osteoporosis. Since the progression of mineral loss is always symptomless and most of the drug experience is uncomfortable, the compliance of medication is a major concern. According to the results of this study, if health care provider can provide more specific information that is easier for patients to understand, they can participate more actively and control better their diseases.

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### Study of bone health and body parameters of 150 postmenopausal

### Asian women in southern Taiwan community

#### WONG To, YU Wen, DAI Ben-Yuan, LIN Fu-Cheng, GAU Shr-Jie, WANG Shen-Yau

#### Introduction

Bone health of aging population is a growing public health issue. Rapid change of body composition and bone mineral density is obvious in postmenopause women. Bone health promotion on specific population can based on intergrate evaluation of community screening. Preventive modality such as multi-sector coalitions can be used for those patients with high fracture risk.

#### Purpose/Methods

We conduit a study to determine the correlation of the body composition and BMD in postmenopause woman in southern Taiwan community.150 post-menopause female were enrolled in the study. Anthropometric parameters including age, weight, and standing height and body mass index (BMI) were obtained. Waist circumference, thigh circumferences, arm and calf circumferences was measured. Total and regional BMD, including Lumbar spine; left femoral neck; and body composition including FM, LM and body fat percentage were measure using DXA densitometer. Physical activity were measure using IPAQ questionnaire.

#### Results

The average age is 64.9 (range 40 to 85). The average BMI is 23.62 (range 14.7 to 33.3). Body fat percentage showed 36.89 (range 10.9 to 38.8).IPAQ MET showed 1791(range 90 to 10560). BMD is significant positive correlated with BMI and FRAX major osteoporosis fracture risk. (p<0.001).

#### Conclusions

Low BMI is correlated with low BMI. Bone health promotion program can focus on these specific population.

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Achieving a satisfactory experience for deaf people by giving them the ability to hear: a case report

#### TSENG Chien-Chih, HUA Chen-Tung, LIN Yi-Chia, LIU Yi-Fang, WU Hung-Pin

#### Introduction

By optimizing cochlear implants (CI), many patient-oriented issues have been taken into account, and it has been found out that the late-implanted patients are affected by the mental issues



involved which make it hard to predict the consequences. Since early rehabilitation after surgery will determine the long term result, the psychological changes should also taken into consideration at the same time. In this study, our purpose is to investigate the changes of late-implanted patient's mental health between pre- and post-implantation.

#### Purpose/Methods

The subject was diagnosed a bilateral profound hearing loss 2 months after birth, but did not receive a CI implantation until the age of 13. After a series of pre-surgery evaluations from different medical specialists including a clinical psychologist, the surgery was executed. Subsequently, a monitoring process which involved the same psychological assessment kept going on.

#### Results

After the first month the hearing ability reached the target volume, but the improvement of speech rehabilitation remained slow. The Children's Depression Inventory (CDI) of the patient shows that the total score has improved (72 to 66, equal to 0.5 SD), however, one of the aspects- negative self-esteem- has deteriorated 1 SD compared to the former test.

#### Conclusions

CI can improve the psychological aspect not only in the long run but also in short term results. Even though the hearing-speech ability was still not sufficient for communication, both social interaction and the negative emotional score improved by 1 SD. But the patient was still depressed due to the negative self-esteem has worsened.

#### Comments

It is recommended that although improving hearing-speech ability is our ultimate goal, the patient's psychological well-being should not be ignored and the patient should be referred to a specialist for observation if needed.

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#### Community-Based Study on Prevalence of Visual Impairment Among The Elderly in Rural Taiwan.

#### WANG Wen-Li, HSU Wen-Lin, KAO Ruey-Ho

#### Introduction

According to WHO, the elder population (>65 year-old) in 2025 is estimated twenty hundred million people, which is two times more than 2006 that was twelve hundred million people. WHO has recognized the significance of Primary Health Care, which is known as PHC centre, in improving the health of old people. Moreover, studies show a even higher prevalence of visual

impairment among diabetic patient aged 65 and above. Thus, community visual retinal examination and visual screening program is important to improve this situation.

#### Purpose/Methods

This is a cross-sectional research, conducted from April till August 2012, with cooperation between the hospital and local medical center in 10 places of Hualien for visual screening program. This study provides the elderly over 65 years of diabetes health education, diabetic foot examination, and abnormal screening referrals to hospitals.

#### Results

This study include 592 aged 65 and above elders, 94.7% have positive screening result. Hypertension 63.4% (n=374), dyslipidemia 20.8% (n=123), diabetic 68.5% (n=404), pterygium 35.3% (201), cataract 88.3% (n=514), retinopathy 55.9% (n=331). This study shows diabetic duration and retinopathy has strong significance (P<0.001).

#### Conclusions

Most of the elders with diabetic living in the rural area tend to neglect their own health, causing a higher prevalence of diabetic retinopathy. The coorperation between hospital and local health station increase the accessibility of the screening service, providing early intervention for diabetic retinopathy for elderly patient in the remote area.

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# Utilization of Integrated Medical Care Decreases the Rate of Seeking Medical Attention for the Multiple Chronic Diseases Patients

### CHENG Chien-Hsiang, WANG Yi-Ting, YOU Xiu-Wen, LI Yu-Ru, CHENG Jung-Feng

#### Introduction

Taiwan has a population of 790,000, who are facing multiple chronic diseases, which will deteriorate physiological function and increase the utilization of medical resources. In order to prevent repetition of medical handling and misuse of medication, disease management and interdisciplinary integration of various medical fields have become significant.

#### Purpose/Methods

The paper aims is using integrated health care to decrease the times of medical treatment. Searching patients with the highest rate of seeking medical attention using medical system. Before visiting doctors, have the case managers reduce the times of seeking medical attention through disease education, medication instruction, and integration of department visiting.

#### Results

3047 patients are seeking medical attention more than ten times yearly. Before integration of health care, the average number of visiting out-patient is 1.3 times monthly. After intervention of case managers, the number has dropped to 0.42 times; efficiency index has gone up to 67.69%.

#### **Conclusions**

Tradition medical and health care system gives priority to treatment of disease. Overlook of specialization of medical care will result in the increase of seeking more and more different departments, and the disease is still not properly managed. Nevertheless, patients with multiple chronic diseases can decrease the times of seeking physicians when different medical team offer integration of resources, teach patients to get to know their condition better.

#### Comments

The seeking of medical treatment has become unlimited in Taiwan, and this has been the cogitation of most people. However, in order to utilize medical resources properly, doctors must reach an agreement to the treatment of common chronic diseases.

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## Short-Term Effects of Cervical Kinesio Taping in Patients with Acute Neck Pain: a Randomized Clinical Trial

#### SHIH Yi-Fen, CHANG Wen-Ling

#### Introduction

Neck pain is a common musculoskeletal complaint that may result in great functional limitation, disability, and high medical costs. Around 20-40% of acute neck pain incidences develop into chronic neck pain. The kinesio taping has been used increasingly for reducting pain, enhancing peripheral circulation, and improving neuromuscular performance. However, few studies investigated the effectiveness of kinesio tape for treating acute neck pain.

#### Purpose/Methods

This study aimed to investigate the effect of the Kinesio tape (KT) application on neck pain status, cervical range of motion, and personal satisfaction in patients with acute neck pain not due to whiplash within 24 hours. This was an exploratory, randomized-control trial. Fifty patients were recruited and randomized into a therapeutic KT group, or a placebo KT group. Pain status and joint range of motion were assessed before (T1), after application immediate (T2) and 24 hours later (T3).

The group-by-time interaction was statically significant for cervical rotation 24 hours after taping intervention. For the right rotation, the mean difference (MD) (95% confidence interval (CI)) was  $8.6^{\circ}\pm2.1^{\circ}(4.4^{\circ},12.9^{\circ})$  for the intervention group, and  $4.3^{\circ}\pm2.1^{\circ}(0.0^{\circ},8.7^{\circ})$  for the placebo group with P= 0.037. For the left rotation, the MD (95% CI) was  $7.2^{\circ}\pm1.6^{\circ}(4.0^{\circ},-10.5^{\circ})$  for the intervention group and  $4.3^{\circ}\pm1.6^{\circ}(0.9^{\circ},7.6^{\circ})$  with P= 0.000. There was immediate improvement in self-reported pain, cervical range of movement, and global rating of change scales in both groups. No group difference was found regarding pressure pain threshold (P= 0.179).

#### Conclusions

Our results showed that Kinesio taping could provide some assistance to clinicians in improving pain-free cervical rotation ROM immediately (24 hours) after tape application. This taping method was a convenient, fast, and low-cost treatment choice for patients with acute neck pain.

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# Session P1.11: Studies on health, wellbeing and satisfaction of hospital and health services personnel

Survey on well-being of health workers. Research intervention on the criticality of the process aimed at providing operational tools.

#### **PORTOLAN Patrizia, PARTENIO Valentina**

#### Introduction

The health risks on the workplace, or in general on the working well-being, are connectable to pathologies related to the conditions that have their origin from the negative perception that the health workers (doctors, nurses) assume towards organizational environment, of its processes, of users's that utilize the service, as well as to objective conditions generated by the relational climate that governs the implicit and explicit aspects of a work environment.

#### **Purpose/Methods**

The model is developed in the following phases: 1.Identify which are the conditions of the context (environmental, relational, communicational...) in which could emerge criticity. 2.Measure the critical area to establish methods of intervention. 3.Defines the level of coping skills on the individual and organizational

#### Results



dimensions (balance of coping). 4.Draw and provides coping tools, and strengthen existing ones.

#### Results

In the analysis of the criticalities, both samples experience more stress in the condition of "problematic relation with patients and their family members". There is evidence of significant differences in coping style: more oriented to the "research of social support" the sample of nurses. In the both samples there is a low use of avoidance of a problem as a coping strategy: the problem is addressed and solved using the professional skills and the user is not abandoned.

#### Conclusions

The descriptive research shows that both the samples experience more discomfort in situations characterized by criticity related to the relationship with the patient and the caregiver. In the population of nurses this criticity is supported by resorting to social support, while on the population of doctors the difficulties are more internalized. This does not affect on the assumption of professional responsability and in the commitment to the solution of problems related to the processes.

#### Comments

The proposal of operational tools should therefore be addressed to provide differentiated support in the different professional categories in relation to critical areas and the skills needed to addressed them, described and evaluated by the same authors.

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#### A Study on the Leisure Participation, Leisure Constraint and Mental Health in nursing staffs

#### HSING Hui-Fen, LEE Mei-Yu, CHANG Te-Hsin, LIN Shu-Chuan

#### Introduction

The workplace for nurses provides a multiplicity of sources of stress, previous studies of nursing stress have found positive relationships between work stress and of mental distress, leisure participation facilitates coping with stress and promoting better physical and mental health, it provides opportunities for personal growth and development across the lifespan.

#### Purpose/Methods

The aim of study was (1) to compare demographic characteristics for mental health status (2) to examine the relationships between leisure participation, constraint and mental health (3) to find out the important predictors of mental health in nursing staffs. The participants were 385 full-time nursing staffs from medical center in Taipei. Quota sampling by service and assessed using a

questionnaire. Data analysis applied correlation and multiple regression analysis to examine the demographic characteristics, Leisure Participation, and constraint effects of mental health.

#### Results

The demographic characteristics of younger, less working seniority, psychiatric nurse and shiftwork has worst mental health status. Leisure participation ( p < 0.01) and leisure constraint (< 0.01) were significant relationship between mental health, although staffs have leisure constraints, but still participate in leisure. The most common constraint was rostering problem, Variances of psychiatric staffs, Participate in sport, structural and personal leisure constraints were predictors of mental health, could explained 31.0% of the variation in mental health.

#### Conclusions

The study provides evidence that participation in leisure improved mental health in nursing staffs, junior clinical nurses and psychiatric nurses need more caring and help. Participation in sport is advocated as a form of leisure for nursing staffs which can produce health benefits. The findings provide for the medical center manager to determine organizational health intervention and promotion policy for staffs, to create a salutogenic workplace and positive practice environments. Both manager and staffs were required to consider how to reduce leisure constraint.

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# The Correlation Between Age and Health Self-awareness of Hospital Employees

#### SHEN Shu Hua, YEN Mioafen, WANG Hsueh-Yin, HUANG Hsin-Jou, LU Huei-Lan, TSO JEN Tso Jen

#### Introduction

Jianan Psychiatric Center is a psychiatric hospital in southern Taiwana. Hospital dedicated to promoting a healthy workplace since joined Health Promoting Hospitals Network in 2009. The purpose of this study was to explore the physical and mental condition of employees' self-awareness in difference ages, in order to meet the needs of employees set to enhance the quality of health promotion programs.

#### Purpose/Methods

392 employees were invited to participate this study, one to one structured questionnaires interview was aadopted for data collecting. 260 questionnaires were returned. This Likert 5 point questionnaires used to understanding the employees' self-awareness to their physical and emotion condition, work and activity influenced in current one month. SPSS 19.0 used for data analysis.

#### Results

1. The population of female sex characteristics can be seen above normal, 79.2% aged 30-39 years old with the majority (37.3%). 2. The average scores perceived physical and emotional impact on the activities and work of each of 3.77 and 3.75.in the past month. 3. The emotional state of self-awareness, work and activities influenced of the three items found that older, by the greater degree of influence in the past month, and both have a statistically significant difference (p <0.011).

#### **Conclusions**

The results revealed that employees perceived physical and emotional condition of the activities and the degree of influence by working on some time interval of at least part of the time, and with the increase in age, it is suggested that future health promotion activities design, to consider the needs of all ages, but also learn more about the emotional level to enhance health promoting hospital staff mental health, both physical and mental health to achieve the purpose.

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Descriptive study of sickness absence in the health care sector of Catalonia

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#### Introduction

Absence from work due to health reasons is a complex phenomenon in companies, and is associated to high health, social and economic costs for workers, companies and society. The health sector has especial characteristics, being one the sectors with the highest sickness absence (SA). The Staff working group of the Catalan Network of Health Promoting Hospitals underwent an analysis of SA among the health centres in Catalonia. Here we refer to both work-related and non- work-related sickness absence.

#### Purpose/Methods

The aim of this study is to analyse indicators of SA according to duration, origin, calendar year and health centres characteristics (size, activity) which will guide the design of strategies to promote health among workers in the health care sector and to reduce sickness absence. Information was obtained from 31 healthcare centres in Catalonia with a total of 25.964 workers,

during 2009-2012. Information on sickness absence spells and the population were obtained from Human Resources Departments of each participating centre.

#### Results

A decreasing trend of the annual rates of SA was observed during the study period. Regarding non work-related conditions, small size centres showed lower SA than those of a larger size (p<0.000), and nursing home centres had lower SA than acute care centres (p<0.05) and long term care centres (p<0.000). Regarding work-related SA, long term care centres showed a greater number of SA episodes than primary health care centres (p<0.00) and acute care centres (p<0.05).

#### Conclusions

This is the first study on SA in the Catalan healthcare sector using common indicators and including a large sample of centres. The difference observed on SA according to health care activity may be due to exposure to occupational risk factors (manual handling of patients, long working hours, etc.). To reduce SA, better and more intense health promotion strategies are needed, together with the improvement of preventive activities, such as vaccinations, stress management, promotion of physical exercise, etc.

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# A Study on Nurse Fatigue--Taking a Regional Teaching Hospital in Southern Taiwan as an Example

#### CHEN Fang-I, CHEN Wen-Chun

#### Introduction

A hospital is the main workplace for nurses. It has been a period of time that severe environment causes unsteady human resource of nurses, negative impacts on caring quality, and serious difficulty of human resource management that Taiwan medical institution encountered. Therefore, to understand how to alleviate nurses' clinical pressure and fatigue in work is a very important issue.

#### Purpose/Methods

The subjects in this study are the nurses working in a regional teaching hospital in Southern Taiwan. We used Copenhagen Burnout Inventory (CBI), measuring Burnout in three subcategories, namely, personal burnout, work-related burnout, and client-related burnout. Moreover, in the 450 CBI questionnaires, the effective ones are 327 with a feedback rate of 72.67%.

#### Results

According to the results, the average year of experience of nurses in the hospital is 8.35 years, and the most senior one is 30. The proportion of the nurses whose year of experience is less than a



year is 6.4%(21 subjects). The seniority of the nurses is positively and significantly correlative with emotion and feeling of fatigue. Among the subjects, 65.4% frequently feels weary and 48.6% feels exhausted after working all day. Moreover, 44.35% of the subjects sleeps averagely less than 6 hours.

#### **Conclusions**

By the rapid tendency of aging population, the increasing demand for nurses is expectable. Nurses usually have problems of fatigue and over-work-loading, including over-long work hours, fatigue, brain exhaustion, and physical tiredness. By studying the causes of workplace fatigue, the hospital administrators can provide fatigue management for nurses and actively care about their physical and mental status as references for building a healthy workplace .

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## The prevalence and associated risk factors of Quasi-metabolic syndrome among hospital staffs.

#### **CHEN Ya-Ling**

#### Introduction

Metabolic syndrome(MetS) has been used as the main indicator to predict the occurrence of cardiovascular disease. It is worth concerning that the hospital staffs' health is under threat given their working venue is highly stressful. This study aims to sort out the relationship between quasi-MetS contracted by hospital staffs and its related risk factors by reviewing hospital staffs' annual health examination data. Hopefully, based on the findings of this study, we can develop useful policies to improve hospital staffs' health.

#### Purpose/Methods

Based on the data of annual health examination (from 2008 to 2012) of hospital staffs in a medical center located in northern Taiwan, we try to understand the underlying situation regarding the prevalence of MetS. The definition of MetS is adopting the standard amended by Ministry of Health and Welfare in Taiwan in 2007. Given the restraint of health examination items, we replace high density lipoprotein-cholesterol (HDL-C) uniformly with total cholesterol and regard a level over 200 mg/dL as abnormal.

#### Results

The study reviews 6975 hospital staffs ( 5220 women, 74.84%; 1775 men 25.16%) with a mean age of 40.65 ( $\pm 9.07$ ) years. The observed staffs can be divided into four camps: Administration, doctors, technicians, and nursing staffs. The difference between the key risk factors that lead to cardiovascular disease and the popularity of Quasi-metabolic syndrome is significant statistically with men higher than women and doctors and administration staffs higher than technicians and nurses.

#### Conclusions

We conclude male staffs, doctors, and administration staffs are more susceptible to cardiovascular diseases. We should reinforce the promotion of self health management and life style refinement towards those targeted population to foster the idea and concept of preventive medicine.

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#### Suicidal Risk Among Workers after Occupational Injury in 12 months Follow up Study

#### KUO Chun-Ya, WU Chen-Long, LIN Kuan-Han, GUO Yue Leon

#### Introduction

The suicidal risk has been associated with trauma exposure and negative life events in several studies. The labors who exposed to a severe occupational injury or trauma events in the work place may have psychological symptoms, suicidal ideation, and impaired life consequences. Few research articles discuss the suicidal risk in the group of occupational injury. The present study aimed to investigate the incidence of suicidal ideation and its risk factors after occupational injuries.

#### Purpose/Methods

We collected the data from the workers who had been hospitalized for three days or longer after their occupational injury and had received inpatient-hospitalization-benefit of occupational accident medical benefits from labor insurance between February 1 and August 31, 2009. We sent the self-reported questionnaires including demographic data, injury condition, and the questions about "Do you have thoughts of ending your life in current one week?" to 4403 workers at 3 months and 12 months respectively after occupational injury.

#### Results

A total of 2001 and 1233 workers had completed the self-report questionnaires respectively at the 3-months and 12-months follow-up investigations. This study found that the incidence of reporting suicidal ideation among workers during 3 to 12 months after the occupational injury was 7.1%. After multivariate regression model , the significant risk factors for suicidal ideation are intracranial injury (RR=1.99, 95% Cl=1.07-3.70) and total hospital stay longer than 8 days (RR=1.74, 95% Cl=1.03-2.92).

#### Conclusions

The results showed that in the 12 months follow-up study, intracranial injury and severity of the occupational injury were significantly related to the incidence of suicidal ideation in the workers after occupational injury. The intracranial injury might

have impact of sequent psychiatric illness and their relationship needs further study. In showed that the severity of physical illness condition related to suicidal risk. Therefore, the suicidal prevention and mental health evaluation should be essential in the rehabilitation program for patients with physical deficits after their occupational injuries.

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# Work patterns and liver dysfunction rate related research – Taiwanese health promoting hospital as an example

#### LIU Tz-Jie, CHEN Mei-Tsu

#### Introduction

Long working hours, inadequate rest periods are common conditions among Taiwan's medical staff. It will cause overload of liver and induce liver diseases. Liver dysfunction will increase the risk of metabolic syndrome and cardiovascular diseases, therefore the harm of liver diseases should not be underestimated.

#### Purpose/Methods

Staff in a regional teaching hospital in Taiwan are the research subjects of this study. We provided hospital employees with free hepatitis screening, 860 out of 1,477 employees underwent the screening, screening rate was 58.23%. Hepatitis screening program included B liver antigen, antibody (HBsAg, Anti-HBs), C liver antibody (HCVab), GOT and GPT examinations. Descriptive and differential statistical analysis were used to understand whether the screening results will be affected by the nature of work, gender and age.

#### Results

The results showed that 156 (18.1%) male and 704 (81.9%) female employees were involved in hepatitis screening program. Among them, 69.7% staff have at least one abnormal index. Among 30 physicians, 23 were abnormal, the abnormal rate was 77%, accounting for the highest in all professions. Abnormal rate of 31 to 50 years old staff accounted for 60.11%. There was no significant difference in hepatitis screening among different types of workers, which means that in medical institutions, different work styles will not lead to the difference in abnormal liver function.

#### Conclusions

Employee health is a valuable asset owned by the hospital, the hospital and the employees' health is closely related. How to maintain their physical and mental health during their busy work and life is a major concern. Through the hepatitis screening reports, supplemented by proper health promotion education,

employees can learn more about their health and improve health quality and achieve the purpose of health promotion.

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# Exploring the impact of Health promoting on staff's well-being perceived

#### LEE Chen-Lin

#### Introduction

Recently, staff's job stress and high turnover rate is an emerging problem in Taiwan's hospitals. Reduction of the occupational stress can contribute to a number of outcomes which are critical to organizational success, including job performance, absenteeism, labor turnover, and occupational hazard. Stress may come from personal or organization factors, for intervention programs in hospital staffs, more attention should be focus on employee in working mental status, psychological well-being perceived and improving overall working environment.

#### Purpose/Methods

We investigated the setting HPHs to improve staff's well-being percipience and hospital environment. The psychological well-being survey using general health questionnaire (GHQ-12) and assessed with likert type scale. The GHQ-12 questionnaire assessed the severity of the staff mental health status over few weeks.

#### Results

Demographically, 72 %( n=136) of participant are female and 67 % aged between 25 and 45 years. Statistical analysis results shows, The GHQ-12 questionnaire of the feeling unhappy and depression, loss of sleep over worry and losing confidence gain high scores indicate (mean score= 3.12, 2.98 and 3.07, respectively) that reflects individual's worse mental health perceived. Next, confirmatory factor analysis and path coefficient are conducted on the research construct by employing AMOS 17. The results showed that setting of HPHs positively improved the staff's psychological well-being perceived (y11= 0.68,  $\rho$  < 0.01).

#### Conclusions

Empirical results from the study proved our understanding of the relationships between setting of HPHs and psychological well-being perceived. The results showed that the health promotion activities offered valuable contribution for developing comprehensive strategies to improve staff's perceived psychological well-being. The well planed strategies including team work cohesion, improved workplace safety, creating working conditions through work (re)design approaches to reducing workload, and prevention occupational hazard.

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#### The Effectiveness of an Employee Wellness Program at Work Place on the Quality of Life of Hospital Staff

#### LIN Chia Yin, WU Pei Li, LIOU Cian Ci

#### Introduction

Despite the potential benefits of worksite health promotion, no previous study has discussed the impact on the quality of life from such programs. This study evaluates the benefits of employee wellness program on the quality of life of hospital staff.

#### Purpose/Methods

75 hospital staff, 23 to 53 years of age, enrolled voluntarily in the employee wellness program. The wellness program, which including 3 physical fitness evaluations, 2 health-related lectures, 2 fitness programs, and 5 monthly posters advertising the health-related exercises, was held from April 15 to Oct 12 of 2013. SF-12 questionnaire was administered to participants at the 1st and 3rd physical fitness evaluation to see the influence of the health promotion program on the quality of life.

#### Results

61 participants have totally completed the wellness program and 2 SF-12 questionnaires. Comparing 1st and 3rd SF-12 scores, there was no statistically difference in the mental component (95% CI -3.04/ 1.06, P= 0.338). However, the physical component (95% CI -4.67/ -1.64, P= 0.001) has significant improved after the health promotion program.

#### Conclusions

The employee wellness program was beneficial to hospital staff and showed that such program can improve the overall physical activity of hospital-wide employees. To establish a more comprehensive health promotion program, psychological counseling and stress management may also be considered for improving not only physical but also mental health in employees.

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A Study of Nursing Personnel's Satisfaction with Their Practice Environments – Using a Health Promoting Hospital in Southern Taiwan as an Example

#### YAN Li-Chun, LIU Chia-En

#### Introduction

The crisis of nursing manpower shortage has continued to spread and seriously influenced medical systems and patients' safety. Thus, how to retain good nursing personnel is an issue that hospital managers must face. The purpose of this study was explored the nursing personnel's perception including the eight elements (training and guidance for new staff, job arrangement, nursing manpower allocation, practice environment, caring for personnel, leadership, salary and welfare, and professional growth and development) of their working environments.

#### Purpose/Methods

This study surveyed the views of the nursing personnel in a health promoting hospital in Southern Taiwan on their practice environments through the "Nursing Personnel's Job Satisfaction Survey" Program. The research samples are the full-time clinical nursing personnel who were still employed by the hospital in April, 2013. A total of 278 subjects were asked to fill an anonymous self-made questionnaire. 166 questionnaires were retrieved.

#### Results

Among them, 162 were valid (97.6%). The scores of job arrangement (71.5 points), nursing manpower allocation (74 points), caring for personnel (72.5 points), and professional growth and development (73 points) were relatively low, while the score of salary and welfare (70.5 points) was the lowest. This means the front-line nursing personnel had some loadings at work arranged by administrative systems.

#### Conclusions

The results of this study provided to hospital policy makers and nursing administrative departments as references. In order to increase job satisfaction of nursing personnel and further making quality for patient care better.

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# Session P1.12: Comprehensive approaches towards workplace health promotion

Health Professionals' Perception of a Healthy Workplace

CRUZ DIAZ Veronica, BAGOT PRATS Marta, CASTANERA DURO Aaron, AMOR JULIA MªAuxiliadora, JUVINYA Dolors

#### Introduction

The Health Promoting Hospital (HPH) network's mission is to implement the Health promotion (HP) through using the standards in hospitals, namely the standard 4, which promotes activities aimed to develop a healthy workplace. Dr. Josep Trueta University Hospital of Girona RHPoined in 2005 and has since then implemented in HP standards in clinical practice, thus improving quality of care.

#### Purpose/Methods

To determine the working conditions that have a positive impact on the perception of a healthy work place by health professionals in a third level hospital. A prospective descriptive study was performed, 194 health professionals were included from June 2012 to February 2013, using a convenience sampling. Sociodemografical data , labor -related variables and the perception of working conditions of staff, using an anonymous questionnaire, were collected. Statistical analysis of data was performed using the SPSSv.19 statistical package for MAC.

#### Results

Used 194 professionals , 18.6 % were male with a mean age of 38.44 years (SD 11.96 ) , 46.1 % were single . 81.4 % were in the group II DUE and 18.6% formed the group of doctors. Female nurses corresponded to 70.1 % of surveyed, p < 0.05. 52.6% answered that they were informed by the institution concerning HP policies performed in the workplace and 62.4 % believed that health promotion is incorporated in the institution's guidelines

#### **Conclusions**

The organizations have to promote HP actions aimed towards promoting healthy working strategies and increasing human resource management , quality of care as well as improving productivity , promoting health care activities that take place in the best working conditions.

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Providing health promoting activities for employees with multiple strategies to develop salutogenic workplace

#### HSU Francesca, FAN Sheng-Hsiung, YEH I-Na, LIN Yu-Ching, HONG Yu-Ping, CHANG Yu-Cheng, SHIH Yun-Wen

#### Introduction

Since 1988, the World Health Organization (WHO) began promoting the health hospitals project. Beginning from 2001, pursuit of health promoting hospitals accreditation became more

popular in Taiwan. This project isn't only for patients. Employees are important asset of organizations, especially in the organizations like hospitals. The degree of participation of health promoting activities is affected by the employee's cognition and availability of health promotion activities. How to increase the employee's participation of health promoting activities is the most important factor.

#### Purpose/Methods

Hospitals should integrate the physical, mental, and social dimensions as well as individual healthy behavior self-efficacy to effective improve employees' healthy life style. Providing the programs to employees in departments, such as how to exercise more correctly, the schedules of physical fitness, offering health education and conducting health-related activities ,counseling services from psychological counselors and creating the appreciation/respect work environment. Increasing the participation of health promoting activities for employees to develop healthcare organizations into salutogenic workplace.

#### **Results**

A survey questionnaire was developed for the research and from the data collected the following results were found. After providing the services in hospital, the employees' participation in medical records department increase to 92%. The degree of desire for participation, self- perceived health status and health behavior self-efficacy also has conspicuous improvement. Not only makes employees feel better about the organizational health but also improves the job performances.

#### Conclusions

Hospitals are special work places with multiple patient care teams that are formed by many professional healthcare workers. Investment in workplace health promotion programs improve employee's health behavior and enhance organizational health culture and environment would benefit the organizations. Promoting employee's health is also can strengthen the quality of medical care and the patient's satisfaction.

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Improving the working conditions in the call centre in the East Tallinn Central Hospital

#### KARIK Lea, TRAUMANN Kaidi, TAMMARU Marika

#### Introduction

Today, call centres are an essential part of the infrastructure of hospitals that aim to offer high quality services at a desired speed. However, the call centre workers are exposed to several occupational health risks, including mental, physical and psychosocial hazards. Recently extensive research has been



conducted in order to describe these hazards and to identify methods to make the environment of call centres as workerfriendly as possible.

#### Purpose/Methods

Our purpose is to describe the measures aimed to enhance the working conditions of the call centre in the East Tallinn Central Hospital (ETCH), in 2012-2013. The ETCH call centre deals with the clients' requests every workday from 7:15 to 18:00; each of the centre's fifteen workers answers on average 190 calls during the 8-hour shift. In 2010, an assessment of working conditions identified a high level of noise in the centre, the workers complained of musculoskeletal pains and fatigue.

#### Results

In 2012 the centre was moved to renovated rooms in a hospital building surrounded by greenery. The ceiling and walls of the luminous workroom are covered with noise-absorbing materials; screens separate individual workplaces. Adjustable chairs, headphones and ergonomic mouse-pads are provided. At the workers disposal is a comfortable restroom; there are three breaks during a shift. The workers have completed training sessions on ergonomics, communication psychology and stress management. Every worker has the opportunity to contact the centre's manager directly.

#### **Conclusions**

The working environment of the call centre in ETCH has been improved significantly. The level of noise is reduced; ergonomic workplaces help to prevent musculoskeletal problems. Training and schooling is provided to empower workers to deal with the complicated situations, management support is offered. The occupational hazards of call centres workers are currently studied extensively; hence hospitals should follow the published evidence and be willing to flexibly apply measures to improve further the working environment in the call centres.

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## An integrative process of developing a multilevel health assessment module for worksites

#### JEKARL Jung, KIM Kwang Kee, YOO Seunghyun, KIM Hyekyeong, LEE Jihyun, LEE Jin Young, KIM Dong Ha, CHO Han-Ik

#### Introduction

One perspective that health promoting hospitals share for worksite health promotion is that it should be viewed and addressed in a social ecological framework. It calls for efforts to move beyond the worksite health management approach mainly focusing on individual employee health care.

#### Purpose/Methods

In addition to conventional assessment of health status and behaviors of individual employees, an integrative approach is employed by a health promoting hospital system in Korea to incorporate organizational characteristics in assessing employee health and in planning for worksite health promotion strategies. A multidisciplinary project team is formed to develop an assessment tool through a combination of quantitative and qualitative methods for development, pretesting, and validation. Worksites and their employees are involved in modifying and editing the assessment tool.

#### Reculto

A collaborative project team is formed with researchers and practitioners from diverse disciplines and specialty areas, including: health sociology, psychology, community health, health promotion, organizational behavior, and health education. After reviewing validated health and organizational assessment tools, a 40-item instrument is drafted to assess individual health behaviors, work environment, organizational culture and behaviors, and job-related stress. Focus groups are conducted at worksites of varying types and sizes in Korea to evaluate and verify the instrument.

#### Conclusions

The instrument is modified and edited in accommodation of focus group discussions and pretest results. Then it is incorporated into a comprehensive worksite health management plan of a health promoting hospital system in Korea that consists of health checkup and follow-up health care and management. Employment of multi-methods from diverse disciplines and involvement of worksites and their employees enable this integrative process to contribute to the development of a comprehensive worksite health management plan.

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### Turning the healthcare institution into a healthy workplace

#### CHIEN Shou-Hsin, LI Shu-Ting, YANG Chung-Wei, CHEN Ching-Yuan, LAI Yi-Ling, CHEN Yi-Ru, LIU Yi-Hua, CHANG Pin-Yi

#### Introduction

Obesity has become one of the most menacing issues worldwide, which causes a number of metabolic diseases. A 15.9% of the Taiwanese aged 12-64 are regarded as obese (BMI>=according to a 2009 survey by the Ministry of Health. In this case hospital, 17% of the staff are obese, even higher than the national average. Therefore, it is imperative for this hospital to implement a weight-watching program using multiple strategies to help our staff control the weight.

#### Purpose/Methods

The program was implemented through three stages: Stage 1: encouraging the staff to participate in the fitness exam; the goal was to raise the participation rate by 10%. Stage 2: Encouraging the staff to participate in an intensive intervention program. Stage 3: Reviewing the results and evaluating improving strategies. Incentives of various amount of awards were provided for encouragement.

#### Results

Forty percent of the staff participated in the fitness exam, up by some 16 percentage points. A total of 43.96% of those whose BMI>=27 participated in the intensive intervention program, and 19.42% of those whose BMI<27 participated in the self management program. More than 80% of the participants agreed that they would pay closer attention to their health, would be happy to participate again were a program like this is available.

#### **Conclusions**

Since this was the first trial, there was no reference benchmark. The participation rate, however, was higher than the goal. The results can serve as a baseline for the future.

#### **Comments**

The staff on the self-management group had higher satisfaction rate. This might suggest that moral support by the organization was sufficient to encourage health promoting activities.

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The effect of worksite health promotion program- An example of a

#### military hospital in Taiwan

CHEN Chien-Chou, SHIH Hsiu-Lan

#### Introduction

According to a health checkup in a hospital in Taiwan, the most common abnormal results were high blood cholesterol and glucose levels. Obesity was also found to be prevalent. Regular exercise is a common resolution of all these health problems. However, few employees had the habit of regular exercise, and it was difficult to motivate those medical professionals without this habit start to exercise. Using principles from the Ottawa Charter for Health Promotion, we developed programs to improve employee health.

#### Purpose/Methods

Build healthy public policy: An announcement in every kind of meetings and website of the hospital. Create supportive environment: Provide exercise areas in the hospital and information of playgrounds out of the hospital. Strengthen community action: Provide supports and resources including

allowances of coach fees of exercise clubs in the hospital Develop personal skills: Set up different exercise clubs to improve skills and fitness. Reorient health services: Encourage medical professionals to play more important roles in health promotion.

#### Results

Employees were encouraged to set up exercise clubs. Several areas in the hospital were assigned for exercise after work. Body mass index, waist-to-hip ratio, sit-up for muscular strength, sit-and-reach for flexibility and 3 minute step for cardiopulmonary endurance were evaluated. There were 101 employees who took the fitness pretest, but among them only 51 employees finished posttest at the end of the year. Only sit-and-reach was 6 % better in the participants. The other items showed no improvement.

#### Conclusions

The health promotion program improved only the flexibility of the physical fitness in hospital participants. Why the expectation of fitness improvement was not met needs further investigation. It's not easy to stimulate the employees' motivation to exercise after a busy work day. Most of the employees who showed positive interest in exercise were reluctant to receive fitness evaluations. It is a future challenge to enroll more participants and not to ruin the interest by fitness evaluation.

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#### Constructing a relieved and Happy Workplace and Cherishing Our Colleagues and Growing Together

#### LIN Pen-Hsi, FU Mei-Chiung, CHUNG Ying-Shien

#### Introduction

The service area of Sijhih Cathay General Hospital, the only general hospital in the northeast of Taiwan, covers remote areas with insufficient medical resources. Therefore, we're responsible for the health of community residents. To complete the mission, it relies on the medical team's collaboration to improve the quality of medical care. The purpose of the current project is to face current medical environment, to encourage staff into medical industry, to gain recognition within, and to stick to our destined mission.

#### **Purpose/Methods**

For the achievements of happy enterprise culture and safecomfortable workplace atmosphere, we bought four ideas: 1.communication skills training and consensus condensing; 2.promoting diverse leanings, including knowledge accumulation and self-protection skills; 3.establishing an e-boarding system providing immediate lohas (lifestyles of health and sustainability) and welfare information. The promotion team, composed of grass roots employees, planed series of activities and welfares;



4.constructing a comfortable and safe workplace and diversify leisure activities to enhanced employees' well-being effectively, and ensured medical business expanded persistently.

#### Results

With aforementioned strategies, atmosphere in workplace has been turn in positive direction; turnover rate of nursing staff between January and June 2013 descend to 38.5% compared with the same period last year, and it has been gradually improved in human resource; Satisfaction rates were raised with increase of 2.44%~14.60% in various dimensions (which including work environment and quality, social support, organizational communication, benefits, learn and grow) during survey in 2013 compared with 2011. Turnover intention was also decreased by 10.56%.

#### **Conclusions**

That proved that the project has gained our colleagues' recognition through satisfaction survey in 2013. It does achieve the goal of our hospital. We look forward to create a happy atmosphere that can overcome adverse medical circumstances and encourage more medical personnel to join medical services with enthusiasm and complete our initial mission: "to provide appropriate medical services for the society " and "cherishing patients and employees", which are the greatest overall value of this project.

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Improving Reinstatement Rate of Parental-Leaving Staff by Providing a Warming and Friendly Caring Career Environment

#### CHAO Hsiu-Ling, CHEN Mei-Chin, YANG Li-Hui, HUANG Shu-Jiuan, GUO Mei-Ling, HUANG Shan

#### Introduction

The policy of parental leave without pay is an important regulation for taking a balance between family cares and continuous career participation. In the recent years, many medical facilities are facing the shortage of nursing professionals, and it requires high intelligence to make the nurses having temporary leaves be back to their positions. After analyzing the causes of resignation, it could be concluded that the reasons are the worries on taking care of children without anybody, being unable to come back to the same section, and being unwilling to have 24-hour shift. The retrospective statistic data shows that parental leave is the Second major reason for resignation during 2010~2012. In 2012, 37 nursing professionals in the Hospital applied parental leave, 13 of them resigned after deadline (35.1%), and 24 of them were back to work (64.9%). The

strategies to construct a warming friendly environment can be applied to relieve the burdens of the life between work and family so the reinstated employees could step into the office again after well arranging the environment for children caring. If the supervisor could show their attention at the right moment and provide some guidance to make them accommodate as soon as possible to the environment and look after their family at the same time, the resignation rate could be decreased indeed.

#### Purpose/Methods

The retrospective statistic data shows that parental leave is the Second major reason for resignation during 2010~2012. In 2012, 37 nursing professionals in the Hospital applied parental leave, 13 of them resigned after deadline (35.1%), and 24 of them were back to work (64.9%).

#### Results

After analyzing the causes of resignation, it could be concluded that the reasons are the worries on taking care of children without anybody, being unable to come back to the same section, and being unwilling to have 24-hour shift. Base on the analysis, the research provides some viewpoints regarding the exercisable strategies to construct a warming friendly environment listed as follows. During the January and August in 2013, the reinstatement rate of nursing professionals has increased from 58.1% to 85.7% comparing to the corresponding period last year. Three of the reinstated personnel have been transferred to the out-patient department due to the requirement factors.

#### Conclusions

The strategies to construct a warming friendly environment can be applied to relieve the burdens of the life between work and family so the reinstated employees could step into the office again after well arranging the environment for children caring. Due to the fact that they have left their post for a while, they need to face the adaption of their job and the modification of the workplace. If the supervisor could show their attention at the right moment and provide some guidance to make them accommodate as soon as possible to the environment and look after their family at the same time, the resignation rate could be decreased indeed, the will of remaining in office could be stronger, and the "warm and happy" career environment conducted by "attention and interaction" could be constructed to create mutually a nursing group belonging to ourselves.

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#### Child Care Service Reduces The Parenting Pressure for Staffs

HUNG Ling-Yu, KO Ying-Tao, TENG Chia-an, CHANG Pei-Li

Introduction

Nurses constitute the majority of hospital staffs and take the major responsibility for patient care. Unfortunately, most of the nurses will struggle between family and work after they get married and have little children. Many nurses resign from their job just because their babies need mother's care. In an analysis of resignation reasons for nurses, In 2012, the resignation rate of child care was 50% (10 nurses).. In order to help our staff to reduce their parenting pressure, we built a day care center for their babies.

#### Purpose/Methods

To reduce staff's parenting pressure, especially for nurses with shift duty, our hospital bought a house nearby the hospital with all the needed teaching and nursing facilities, employed child care professionals and set up a day care center. Children of our staff will get a discount for tuition fees. If more than two children are enrolled, the staff will even get a further discount. Parents can send their children to the day care center then go to work without worries, not only saving their money but also the transportation time.

#### **Results**

There are 56 children in our day care center, 55% (30) of them are from our staff's families. Three staffs send more than two children to the center. At the opening day, the Mayor of New Taipei City attended the ceremony and praised our service. Our day care center is outstanding and receives an award and funding from the Council of Labor Affairs in 2013. In all the health promoting services provided by hospital, day care center is the second favorite service.

#### Conclusions

#### Comments

WHO defines health as a state of complete physical, mental and social well-being. Our hospital not only takes care of our staffs but also their beloved. The day care center is to help our staffs to care their families well and without worries while they are working. The coherence is built among our staffs when we treat their families as members of the hospital. Childcare service is just a start. In the future, there will be a Reading Center for adolescent and more other comprehensive services for our staffs.

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Promoting Age-Friendly Health
Working Place--Taking One Southern
Regional Teaching Hospital in Taiwan
as an Example

LIN Yu-Yin, CHEN Fang-I, CHEN Mei-Tsu

#### Introduction

Some of physical functions have been changed by aging. With progressing of healthcare and society, Since 1993, Taiwan's aging population with 7 % of total population has been an aging society. According to the latest information of population projection, it shows that Taiwan's aging population will surpass 20% of total population in 2025. One in every 5 people is elderly, which become a super aged society. Therefore, it is very important to establish an age-friendly healthy environment.

#### Purpose/Methods

Each person's aging process and rate are so different, and the difference is getting bigger with age. The changes include longer reaction time, slower moving, decaying representation of perceptual motor, aprosexia, weak visual function and identification. The research on the elders over the age of 65 are to do cross-sectional study and issue 118 patient satisfaction questionnaire survey. It can realize the elder's feeling about accessibility facilities, waiting time, staff's service attitude, healthcare process and result.

#### Results

The study tools are ANOVA, T test and descriptive statistics. We found the elders over the age of 65 have 86.41% average service satisfaction of hospital's facilities with environment and outpatient clinic 's waiting time. Female elders are more satisfied with staff's service attitude than male elders. Male elders have no marked effect in healthcare and service. Therefore, gender is an influential factor in susceptibility.

#### Conclusions

Because of life expectancy, aging population structure has been a phenomenon in the world. It is very important to make sure elders have a healthy body and safe living area. Hospitals promote elders health, committing to establish an age-friendly healthy environment to enhance encourage mass participation. When they receive medical treatment, they can have a feeling of safety, ease and dignity. Hopefully everyone can establish an age-friendly healthcare environment together for elders and meeting their demand to make them enjoy their healthy life.

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## Promote a friendly workplace culture to retain emergency nurses

#### LI Yu-Ru, LIAO Yi-Yun, CHENG Jung-Feng

#### Introduction

The case of nurses to remain in the workplace has been an important issue , because the emergency room at the medical front, a large number of patients , poor nurse-patient relationship with the care environment, personnel pressure, high mobility , there are only about 60% per year to retain more emergency



nurses ,In our hospital emergency room nurses 2011 retention rate was 82.9%.

#### Purpose/Methods

In order to improve emergency nurses retention rate, creating a friendly, support workplace environment, starting in 2012, 1. the ward leader to promote a caring led colleagues to create intimate relationship. 2. encourage staff to achieve Individual dreams. 3. learning and community activities and colleagues to participate. 4. Volunteer parents model (volunteer adopt the role of parents) offers family- cultural experience.

#### Results

2012 Emergency Nurses retention rate was 94.1%. And from January to October 2013, 100% of emergency room nurses are in office , are working well .

#### Conclusions

The workplace culture change requires multi-faceted effort will be treated as a family unit , in the element of respect and trust , providing spiritual care and support of the entire nursing staff , expanding mutual concern to the team , to staff enhance the efficiency and self-realization .

#### Comments

To promote a friendly workplace workplace culture change thinking, constantly pushing through the conduct and activities, so that the nurses feel positive change, and to improve the effectiveness remain.

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# Moderating Effects of Implementing Employee Assistance Programs (EAPs) in Hospitals upon Work/Family Balance and Workplace Deviance Behavior

#### LIN Kun Yen, KU Yan-Chiou

#### Introduction

To run a hospital sustainably in a rapidly changing environment, "employees" play very important roles. If the job performance of an employee is influenced by his/her personal work or family issue, which further leads to workplace deviance behavior, his/her performance might decline, and the hospital he/she works for might face unprecedented great damage.

#### Purpose/Methods

Employee Assistance Programs (EAPs) assist employees to reach a work/family balance and reduce the happenings of workplace deviance behavior, and the programs further promote the

benefits and performance of an organization. Hospital employees were the subjects of EAPs, and a questionnaire (5-point Likert scale) was conducted with the matching method of supervisors and employees. In addition, SPSS 12.0 software was used to analyze the results of the survey. With the work/family balance as the independent variable, EAPs as moderating variables, and workplace deviance behavior as the dependent variable, the work/family balance interacted with EAPs to comprehend whether EAPs had moderating effects on the work/family balance and workplace deviance behavior.

#### Results

Among 330 copies of the questionnaire being distributed, 312 of them were retrieved. 300 copies were considered valid, and the retrieval rate was 96.15%. The implementation of EAPs in hospitals had moderating effects (R2=0.24) upon the work/family balance and workplace deviance behavior. Moreover, when satisfaction with EAPs was higher, the influence of work/family balance upon workplace deviance behavior had reverse dropping relation ( $\beta$ = -0.16, P<0.05).

#### Conclusions

The implementation of EAPs in hospitals had moderating effects upon the work/family balance and workplace deviance behavior.

#### Comments

In conclusion, hospitals should continue to carry out EAPs, increase their service items and provide multiple support channels to lower the happenings of employees' deviation behavior in workplace. keywords: Employee Assistance Programs, Work/Family Balance, Workplace Deviance Behavior

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## Demands of health promoting and implemention for each category of employees in the hospital

#### **HUANG Hui-Lan**

#### Introduction

It is essential to have healthy workers to promote the health of patients. Highly specialized workers are quite various in many parts, such as personnel differences and demands of health. Hence, it is important to meet the demands of various type of employees to efficiently use resources when promoting the health of workplace.

#### Purpose/Methods

To understand the demands of health promoting activities from hospital staffs. Compare different categories of employees in health promotion and make it a basis for the activity of health promotion. Self-designed questionnaires were used to investigate 685 employees in St. Joseph's Hospital from 2011 to 2013.

#### Results

Overall, the top three of health promotion demands were pressure relief seminars, healthy diets and worksite-related physical fitness. Each percentage were as following: In doctors, pressure relief seminars(26.5%), healthy diets(22.4%), worksite-related physical fitness(20.4%), in nurses, pressure relief seminars(31.4%), healthy diets(20.7%), worksite-related physical fitness(16.1%) ,in medical technicians, pressure relief seminars(29.3%), healthy diets(19.5%), worksite-related physical fitness(15.1%), in administrative staff, pressure relief seminars(27.6%), healthy diets(20.5%), worksite-related physical fitness(17.1%).

#### **Conclusions**

The top three demands of four different categories were pressure release seminars, healthy diet and worksite-related physical fitness. There were 76.4% of the employees believe pressure relief seminars could effectively enhance their mental health. 92.3% of employees agreed to the promoting of the "workplace health promotion" policy in the hospital.

#### Comments

In comparison with the 2012, the staff turnover intention was lower in 2013, reaching a significant difference (p <.01).

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## Physician Work Hours and Turnover Intentions in Taiwan—The Role of Health Promoting Hospital

#### TSAI Yu-Hsuan, CHIOU Shu-Ti, CHIEN Li-Yin, HUANG Nicole

#### Introduction

Physician shortage has become an urgent and critical challenge to many countries. According to the workforce dynamic model, long work hour may be one major pressure point to the attrition of physicians. However, due to controversies on physician's work hour regulation, it is important to explore whether potential hospital management strategies can also help address physician attrition. Therefore, this large-scale physician study investigated how hospital's involvement in health promotion activities may influence the relationship between work hours and turnover intentions.

#### Purpose/Methods

Data were obtained from a nationwide survey of full-time hospital staff members working at 100 hospitals in Taiwan. The analysis sample comprised 3,933 full-time physicians. Dependent variables were the degree of the physicians' two turnover intentions: intention to leave the current hospital and intention

to change the occupation. The hospital's involvement in health promotion activities was assessed based on hospital's participation in the health-promoting hospital program and its performance in health promotion activities. All analyses were performed using Stata MP/12.1.

#### Results

Our results show that 50.4% and 39.2% of surveyed physicians reported moderate to strong intentions to leave a hospital, and to change occupations, respectively. The average work hours per week among hospital physicians was 62.4, and 12.0% of the physicians worked more than 89 hours per week. As expected, work hours exhibited an independent, dose-response relationship with turnover intentions. More importantly, the hospitals' health promotion efforts moderated the dose-response relationship between work hours and intentions to leave current hospital.

#### Conclusions

Overtime work is a critical problem that has a significant association with physicians' turnover intentions in Taiwan. Based on our findings, in addition to regularly monitoring physician work hours, establishing an environmentally friendly hospital may be an effective strategy for addressing physician shortages.

#### Comments

Among this large-scale survey of hospital physicians, the medical centers and regional hospitals where physician shortages were the most serious were included in the sample. The sample size of 3,933 physicians ensured high statistical power, not only in determining the significant effects of work hours on turnover intentions but also in examining how HPH status moderates this association. The findings show that overtime work is prevalent among hospital physicians in Taiwan, and both Taiwanese government and hospitals must take action.

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Workplace violence among hospital nurses in Taiwan: Would Hospitals Efforts in Health Promotion Mitigate the Problem?

#### WEI Ching-Yao, HUANG Nicole, HUNG Ta-Chuan, CHIEN Li-Yin, CHIOU Shu-Ti

#### Introduction

Workplace violence is a major threat to workplace safety for health professionals. Nurses in hospital settings are at a higher risk. Previous researches on investigating risk factors of workplace violence in healthcare sector are mostly limited to individual characteristics and work unit. Environment and characteristics of hospitals are often overlooked, which theoretically may play an important role.



#### Purpose/Methods

The study investigated individual and hospital characteristics associated with workplace violence among hospital nurses, particularly how hospital's efforts in health promotion may influence workplace violence. Data was obtained from a large-scale cross-sectional survey of all nurses in 100 hospitals in Taiwan. Response rate was 74.3%. In addition to individual characteristics (nurse's age, gender, marital status, and work unit), hospital characteristics included ownership, accreditation level, and status of health promoting hospital. Status of health promoting hospital was used as a proxy for hospital's efforts in health promotion activities.

#### Results

Of the 31,711 participants, 5,603 indicated that they had experienced physical violence, 8,767 had experienced threats/intimidation to personal safety, and 12,060 had verbal/sexual harassment. Multiple logistic regression showed that after adjusting for participant's characteristics, nurses worked in public hospitals and in medical centers were 1.24 and 1.13 times more likely to experience any workplace violence. More importantly, nurses working in outstanding HPH were 23% less likely to experience violence. All results remained similar for physical and non-physical violence.

#### **Conclusions**

In addition to individual characteristics of nurses, hospitals play an important role in the prevention or reduction of workplace violence. More specifically, hospital's extensive investments or efforts in health promotions are not only beneficial to patients, but also to occupational health of health professionals. The findings may provide references to design effective violence reduction strategies in high-risk hospital settings.

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#### Session P1.13: Reducing workrelated risks for muskuloskeletal disorders, infections and others

A model for preventing joint damages in everyday job life of nurses in Vigevano Hospitals (Italy)

### MARTINO Maria Teresa, VARALDA Emilio, BONA Maria Carolina, ABATANGELO Luca

#### Introduction

Lack of people in job places complicates job organisation and produces elevated insurances costs. Overused and stressed joints

are a big problem in nurses job activities that causes related job deseases. Education to prevention may be an answer for long time joints health

#### Purpose/Methods

This work analyses mild gymnastic effects on selected suffering nurses with lumbar and shoulders pain manifestations. During 2013 (jan/oct) in the hospital of Vigevano 50 nurses (aged from 42 to 55) were visited by the physiatrist who excluded big health problems (neurological and surgical) by investigations (ecography, TC). Fifteen patients followed a short ambulatorial program of physioteraphy (10/20 sessions) in hospital and the remaining nurses were sent to a continuative training of mild exercises, all year long, out of hospital

#### Results

The first group with therapeutic sessions had pretty good results but limitated in time. We saw new pain episodes and nurses needed new visit and new physiotherapy. Some of them got a lumbar devices and some had to change job. None kept training the exercises learnt. The other group had better results. The 90% declared to have better compliance to everyday life activities and a light joints perception globally. They staied fit longer with any or few pain manifestations episodes.

#### Conclusions

The number of persons analyzed is small but the results of this work remarks that in young people and in young workers more, prevention is a very important matter. Correct and continuous training of young people makes joints safer and this would be a safe educational conceipt for the long working life of a person and his joints. Besides is also important the psycologial meaning that prevention allows a person to manage his own health, without beeing necessarily sick.

#### Comments

Job and age cause damages in joints lifetime durability. Prevention made by correct postural education added to continuous joints training make the worker safer in everyday life and of course in job activities. Besides safety is also the product of correct training of worker in job places, well endowed of adequated protection devices

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## The attenmpt in our hospital with our expertise of rehabilitation for good health

#### **KOUICHI Ariyoshi, YUUTA Siogai**

#### Introduction

We practice our policy from we respect our patience individually and develop communities where the people can live without any

worries. Today we will give a presentation for our method of training therapists and the attempt we have made for "good health", making the most of our professional skills of rehabilitation.

#### Purpose/Methods

We have enforced "Human Movements Workshop (HM)" for the therapists to correct their posture or the ways of handling their bodies . We tried to change our way of thinking for various approaches of the rehabilitation by using a tool called "Aid for Decision-making in Occupation Choice (ADOC)" which shows the way of interview and reporting actual cases. Based on the technics cultivated in HM and ADOC, we held the class of "lower back pain and stiff shoulders (LS)" to goal for improving good health

#### Results

HM has been performed 63 times since 2007. Some of the staffs said the workshops were good opportunities to be able to improve their skills, but also learn the posture or movements of themselves. Also, 90% of the answer found that after ADOC, the therapists could improve the frequency of communications between them and their patients and change their ways of thinking about involvement in our patients. Moreover, The Chairs of "LS" has been held 10 times since 2009 to 2013. The results of the questionnaires told us that the participants got incentive to exercise through learning about their posture and pains.

#### **Conclusions**

Because of our continuing activities for local people, the number of participants has increased in recent years. At the investigation about the stress of whole members made in 2012, both "health risk" and "motivation of our office" were the best score than any other workplaces. We think that practicing each of the professional rehabilitation skills is good effects on our motivation for work and physical conditions.

#### Comments

In Japan, the area of the rehabilitation is limited and not every one knows about what rehabilitation is. However, the rehabilitation which calls the patients into action has been growing its importance becouse a decline of activity caused by illness or impediment steadily leads a vicious circle to ruin good health. From now on, we will keep trying to interract with our patients, staffs and the local residents widely by utilizing our advantages as the therapists, continuing self-improvements and health promotion.

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Low back pain intervention at our hospital through the introduction of rhythmic exercises

#### TAKENO Seina, WONG Toh Yoon, HAYASHI Misao, HAMAZAKI Shinobu, MURATA Hirohiko

#### Introduction

According to a survey by the Healthcare Research Institute of Japan, more than 80% of nursing staff suffer from low back pain (LBP). Studies have shown that significant reduction in LBP intensity can be achieved through workplace exercise. In this study, we investigated the prevalence of LBP among our nursing staff and evaluated the efficacy of a rhythmic exercise program introduced recently.

#### Purpose/Methods

A rhythmic exercise program was introduced by our hospital's safety and health committee. Nurses are required to perform guided morning exercises for the prevention of LBP before commencing work. Surveys through questionnaires were carried out before the introduction of the program and three months after intervention.

#### Results

Questionnaires were completed by 87 nursing staff. 63 nurses (72.4%) experienced some degree of LBP before the program with 10 (11.5%) reporting intense LBP. After three months, the number of nurses reporting some degree of LBP fell to 53 (60.9%). 21 nurses (24.1%) reported improvement in LBP, 67 (72.4%) experienced no change while 3 (3.4%) described some deterioration. From a scale of 1 to 5, there was a significant improvement from 3.15 to 2.87 (p<0.001).

#### Conclusions

Introduction of a rhythmic exercise program in our hospital was accompanied by improvement in LBP intensity at three months. Further evaluation is necessary to promote and enhance the program towards reducing the burden of LBP on healthcare employees.

#### Comments

Approximately 70% of nursing staff undergoing the program responded positively and expressed intention to continue.

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Impact of the Kinesitherapy and Spine Stretching in the Vertical Bath on the Back Function

#### **STONKUTE Renata**

Introduction



Implementing the health promotion program, the groups of employees who underwent the kinesitherapy and spine stretching in the vertical bath were selected in Palanga Rehabilitation Hospital. All the employees were complaining of the neck and lumbar pain and tension. Before the procedures and after the procedures the functional examination of the back was carried out with the "Insight" apparatus. The employees were interviewed about the changes in their health status .

#### Purpose/Methods

INSIGHT is the newest and most innovative functional examination of the back health. At the time of this examination 5 parameters are evaluated. They help to assess the neurospinal function and help to prepare the kinesitherapy program. The mean value of these five parameters is calculated. It represents the neurospinal index. Functional examination of the back with the "Insight" apparatus before and after the procedures, subjective inquiry about the health status changes of the employees .

#### **Results**

27 employees feeling the back pain participated in the research. When one half year passed after the procedures the mean value of the pain test was 96.65%, of the movement amplitude: 75.55%, of electromyography: 76.77%, of the thermal scanning: 77.50%, the mean value of the pulse wave was 70.11%. The neurospinal index was 75.80%. When the employees were interviewed, they reported that they all felt general improvement in their health status, the pain decreased and the quality of their sleep improved.

#### Conclusions

When the test results were evaluated, it became clear that algometry, the movement amplitude, electromyography and the thermal scanning data improved.

The neurospinal index improved after the procedures.

The interviewed employees all reported improvement in their health status.

The kinesitherapy and stretching in the vertical bath acted positively on the functional back status and the general health status.

The positive effect of the procedures was long-term. The examination of the employees after one half year following the procedures proved this fact.

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A descriptive study about the musculoskeletal injury in the nursing staffs of a medical center

LIN Shu-Chuan, LEE Li, WEI Shu-Ping, CHEN Ching-I, KUO Li-Lin, LIU Chih-Ju

Introduction

Musculoskeletal injury has been regarded as one of the major occupational injuries, especially for the nursing staff who was usually thought to be high-risk group in the injury. This study aims to investigate the injured condition of the musculoskeletal system in the nursing staff and provide a reference data for future prevention.

#### Purpose/Methods

The analysis was initiated by a self questionnaire (Nordic Musculoskeletal Questionnaire, NMQ) in 1686 nurses with regard to their subjective feeling of musculoskeletal injuries.

#### Results

The results revealed that shoulder and neck injury was the top 2 musculoskeletal injured locations among nine, the incidence is as high as 66.5% and 60.3%, respectively. Following is the lower back (58.3%) and wrist (42.0%). Chi-Square analysis of the six regions, including lower back, elbow, wrist, hip or thigh, knee feet or ankle, have noted a significant difference (p <0.05) in different department. Further study found the correlation between the severity of the neck and shoulder injury and the seniority, daily working hours, standing duration and shortage of rest. Injury affected the work most is over the right wrist (21.0%) and the injury over this region was also mostly relevant to the work (42.1%).

#### Conclusions

These data indicate the necessity of associated strategies in prevention of musculoskeletal injuries in the nursing staff. It is suggested that a rational manpower should first be reassured and thus allow the staff to have sufficient holiday. The working environment, facility and operation procedure should be improved, depending on each department's characteristics. In addition, the associated protective gear, safety equipment and training course for the prevention of musculoskeletal injuries should also be provided.

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Promoting influenza vaccination in Consorci Sanitari del Garraf - from professional to professional

#### FREDERIC Bretau, JOSEP LLUÍS Salcedo, ESTHER Fuertes, ANA Jiménez, ROSA Simón

#### Introduction

The Department of Occupational Health focuses on prevention and advice on the requirements for establishing and keeping a safe and healthy work environment. According to the WHO estimated percentage to generate group's immunity and interrupt the transmission of influenza in health centers should

be 80%. In Spain, the rate of vaccination among professionals is 25%

#### Purpose/Methods

There is a broad consensus among scientific societies and professional associations and nursing on whether the flu vaccine among professionals, the purpose is to increase vaccination coverage in CSG professionals. Performing a proactive media campaign professional training in the Intranet center and corporate magazine with images and messages addressed. Health professionals working to increase the accessibility of the vaccine making rounds services and shifts.

#### Results

The result is an increase of 4 % compared to 2012 vaccinations . Coverage is 26 % of that 75 % of professionals are health care professionals and 25% non-healthcare professionals.

#### Conclusions

The design of institutional campaigns actively involved in the largest number of professionals, encouraging each other to improve outcomes and assist in better organization of the work of the campaign. A campaign of this kind enables staff CSG see more local professionals who develop their work in Occupational Health. The coverage achieved this season put us to the challenge of its increase in the following seasons.

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Flu vaccination campaign – 2013: how to change the way of delivering the same message in order to be heard

#### SANCHEZ FLORES Eugenia, RIPOLL REDORTRA Ruth, ROPERO RODRIGUEZ Sandra, MAQUEDA SUÑER Marta

#### Introduction

Prepare an internal campaign to improve the staff awareness of the need for the vaccination against flu, because they are exposed daily ( health personnel and the rest of the staff) and to increase the number of vaccinated personnel. The main objective was to persuade the staff, by trying to innovate the way of conveying the usual message given every year.

#### Purpose/Methods

Internal communication: posters, screen saver, internal mailing, banner in the intranet, articles in our magazine, informative audio-visual capsules. These were made with volunteer staff from different departments with the objective of giving different reasons for wanting the vaccine and why they would advise the rest to do the same.

#### Results

The number of vaccines we dispensed in comparison to other years rose considerably. We made staff more aware of the importance of the vaccination. We put familiar' faces to the arguments for the flu vaccination. This new campaign has been very well received by everybody. We still are far from the official rates (25%) for the health personnel vaccinated, but we are delighted to announce our improvement from 9.66% in 2011 and 9.37 in 2012 to 16.09% this year.

#### **Conclusions**

Change the way of delivering the same message in order to be heard. Information from an expert you know or work with, is much better received. Tell people where they should go, when they can go, who will vacinate them and give them all the information about the vaccine. The Improvement of the results is thanks to the working in team between the occupational health department and the communication department, and specially due to the support of the Direction.

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## Key Factors for the Acceptance of Influenza Vaccination of Healthcare Workers

#### **HUANG Chipin, PAN Telung, SU Ifung**

#### Introduction

Health care worker vaccination was critical to protect their safety. A key to protecting health care workers during the H1N1 pandemic is influenza vaccination. However, vaccine uptake rate decrease these days in Taiwan. This study exams key motivators and barriers influencing Influenza vaccination for the healthcare workers to identify modifiable factors that can improve uptake rate.

#### Purpose/Methods

A survey was conducted at two teaching hospitals in Taiwan. Healthcare worker (N = 645) completed measures of demographics, vaccination history, influenza risk factors, and attitudes toward influenza vaccine. Factor and discriminant analysis were used to find the key factors for the willing of acceptance of influenza vaccination.

#### Results

There are 9 important factors for the acceptance of influenza vaccination for healthcare workers (Wilks' Lambda = 0.3, p<0.000). The first three key factors that healthcare workers were likely to accept the influenza vaccine if they (1) belief that vaccination is important (0.581), (2) have confidence in vaccine safety (0.301), and (3) have encouraged by the supervisor and physician (0.142).



#### Conclusions

Many of the factors that influenced healthcare workers pandemic vaccination decisions have previously been reported in seasonal influenza vaccination literature, but some factors were unique to pandemic vaccination. This study identified key factors why healthcare workers get vaccinated and provides direction for future influenza vaccination programs. It is important to create a culture of vaccine promotion in the hospital, including strong encouragement from supervisors and physicians.

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## Establish the herd immunity among all medical staffs in our hospital before flu season

### LIU Chih-Hua, LAI Ho-Hsien, LAI Yun-Fong, CHEN Meng-Kan

#### Introduction

Medical staffs working in the hospital are the first line to against diseases. At the same time, all the medical staffs are also the most vulnerable people during the flu epidemic. Thus, knowing achieving the sufficient coverage of establishing herd immunity against flu in the medical staff or not is an important issue before the flu season. Once the coverage rate could be achieved 1-1/R0 (Basic Reproductive number), the herd immunity could be established

#### Purpose/Methods

According to previous local study, the RO of Influenza in Taiwan is about 2.7-5.0 (Wang et al. Infect Control Hosp Epidemiology). In order to establish the herd immunity in our hospital, the least coverage rate would be 0.629. For this goal and even higher coverage rate, we conduct the multiple stations and multiple sections injection plan delivering the vaccination service to each work site on different schedule and eliminating the potential barriers.

#### Results

The steady population of our hospital during working hours is about 2026 including 1525 employees, and 501 in-patients (716 beds with around 70% occupancy rate). In the end of the plan, 872 employees are vaccinated whereas only 43% coverage rate. With such result, once the number of vaccinated in-patients is less than 404, the outbreak in the hospital would occur.

#### **Conclusions**

Because knowing and control the coverage rate of in-patient are both difficult tasks, in the future we should try to improve the coverage rate in employees as higher as possible. From this year experience, we will disseminate the importance of achieving sufficient coverage rate which could bring out herd immunity before next year vaccination project. Even more, from the view point of public health, we also should consider to make vaccination be a kind of obligation more than welfare.

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# Attitudes to seasonal influenza vaccination of unvaccinated healthcare workers in a regional hospital in Taiwan

### SU Yu-Fung, LIU Keh-Sen, LIN Wei-Chen, CHEN Chia-E, CHEN Chao-Feng

#### Introduction

The rates of seasonal influenza vaccination for healthcare workers (HCWs) are low although vaccination is considered a major measure to protect both HCWs and high risk patients against influenza infection. The objective of this study was to explore attitudes to influenza immunization among staffs who declined the vaccination for free in regional hospitals in Taiwan.

#### **Purpose/Methods**

The study used a cross-sectional questionnaire survey, administered since November 1st to 30th, 2013. The questionnaires were specific for those unvaccinated HCWs.

#### Results

The reasons of unvaccinated were experienced vaccine related adverse events (43.3%), just no willing to vaccinate (35.3%), acute illness with a fever (7.4%), in pregnancy or plan to get pregnant (5.7%) and allergy to vaccine or chicken eggs (3.0%). The most commonly negative motivations were concern about safety (33.3%), efficacy (22.1%) and past experiences of vaccination related side effects (26.8%). Interestingly, 56 (24.2%) unvaccinated staffs reported no any doubt about the vaccination. Only 39 (16.9%) reported they comprehended the benefits of vaccination. 115 (49.7%) declined vaccination and they believed it was not necessary because no serious consequence even got influenza infection. 24.7% reported they were not clear about the advantage and disadvantage about the vaccination.

#### Conclusions

The rates of influenza vaccination among HCWs in our hospital remain low. Although enough educational activities had been arranged every year in hospital, many HCWs remain unclear about the influenza vaccination. Noteworthily, misconceptions about the efficacy, safety and adverse effects of the influenza vaccination are major and need to be corrected. Educational and promotional programmers should be targeted on these misconceptions.

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Effectiveness of intervention program to increase health professional's motivation about their HBV immunity protection. A randomized control trial.

#### SKOURTI Ismini, LAGIOU Areti, DIMITRAKI Christina, PETROULIA Ionna, TOUNTAS Yannis

#### Introduction

To investigate the associated factors that can positively increase health professional's motivation about their immunization level against HBV and to assess an intervention program's effectiveness.

#### Purpose/Methods

In 2010, a total of 117 health professionals, working in a Greek public hospital, were stratified to take part to a randomized control trial. The intervention group received a complete intervention program aiming to motivate the subjects to check their immunization status. On the contrary, the control group received a shift with general information about HBV infection only. A self- completed questionnaire, based in Health Belief Model, was used to evaluate both groups responses, their intention to act and their actual outcome (action).

#### Results

Significant increase was noted in intervention group's motivation to check their immunity status (p=0,040), HBV infection's perceived susceptibility (p=0,040), HBV infection 's perceived seriousness with regard to the consequences it can have in the quality of life (p=0,040) and financial status (p=0,020), and also in subject 's self-efficacy to use a reminder method, after the intervention. No significant results were noted in the control group.

#### **Conclusions**

The implementation of intervention programs can contribute towards the motivation of health professionals to undertake the relevant immunity check in order to protect themselves against HBV.

Contact: SKOURTI ISMINI GENERAL HOSPITAL ASKLIPIEIO VOULAS GRILLOU 11853 ATHENS, GRC Health promotion by vaccination campaign for hospital staffs in a hospital

#### KI Hyeongyun, CHOI Jaegyeong, KIM Aeri, KO Beomja, KIM Yoonsook, CHOI Jeonghwa

#### Introduction

Vaccination has been recognized as one of the most effective measures for prevention of communicable diseases. Notwithstanding the clinical implications, vaccination has been devaluated in adult population. Especially vaccinations of the hospital staffs have dual implications: Prevention of nosocomial spread as well as the prevention of the diseases among the hospital staffs.

#### Purpose/Methods

A single university hospital medical staffs participated. Hospital-wide recommendation was based on the recommendation by Korean Society of Infectious Diseases for medical staffs, vaccination history of the personnel, and hospital policy. Hepatitis A and Tdap vaccination were chosen for the appropriate candidate of the campaign. Vaccination campaign had done for 2 weeks after the informed consents were taken.

#### Results

Seven hundred fifty five member of hospital staffs were participated the campaign (755/2014, 37.4%, HAV only: 140 person, Tdap: 222 person, HAV and Tdap both: 393 person). Among the hospital staffs, doctors (143/412, 34.7%) and nurses (366/746, 49.0%) participated more frequently than other staffs (246/1258, 19.5%). During the campaign, 20% of the vaccinee had experienced any type of adverse events but severe adverse events had not been observed.

#### Conclusions

One third of the hospital staffs joined the campaign (37.4%). However, considering the low compliance rate for the campaign, we should analyze the factors of non-compliance and continue the vaccination campaign regularly.

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The Central Supply Room environmental contro1 plan of glutaraldehyde disinfectant operating in Wan Fang Hospital



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### YANG Fan-Chung, YEH Ching-I, CHIU Cheng-Shan

#### Introduction

In hospitals, medical equipment used for disinfection and sterilization with glutaraldehyde commonly. In the soaking process it will produce irritant volatile gases, is irritant to the skin and mucous membrane. Hospital uses the Occupational Health and Safety Assessment Series Specification; finding out there is certain degree of risk when touching the harmful materials from the hazardous and risk assessment mode every year, and transacting the engineering improvements.

#### Purpose/Methods

In the plan, was congregating the glutaraldehyde disinfectant operating to a locations. There was an airtight space and increased the air exchanger rate to make the vapor levels dropped to a safe value. Constructed in accordance with glutaraldehyde disinfectant operating safe working environment conditions

#### Results

According to the requirement, the workplace was 106.13 square feet. The surrounding walls and ceiling were hermetically. About 0.12 inches gap at the bottom of the door to allow air circulation. The operating area Installed local exhaust ventilation. The ventilation frequency was designed at least 10 times per hour to keep the pressure, between -10 to -11Pa. There was an air-conditioning vent to preserve the temperature between 68 to 73.4 °F. Developing disinfectant standard operting procedure (SOP) to protect operator.

#### Conclusions

After engineering controls, was separated the operating area from general operating space. The test results every six months average approximately 0.000957 ppm in operating environment much lower than the Taiwan's regulations 0.2ppm. From the data of hazardous risk assessment between 2010 to 2011, the total exposure risk dropped from 12.2% to 9.8% on touching the harmful materials. Using less hazardous disinfectant, engineering control, implementing SOP and using PPE correctly can reduce personnel exposure to hazardous chemicals.

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### The prevalence and risk factors of varicose veins among nursing staffs

#### LIN Li-Li, LIN Shu-Chuan, CHANG Te-Hsin

#### Introduction

The workplace for nurses provides a multiplicity of occupational hazards. Few studies have examined the factors associated with diseases of varicose veins in the hospital are work and stand for a

long time among nurses. Medical center managers must to find out the risk factor to occupational hazard for nurses, it will serve as a reference for the improvement of working environments used by workplace health promotion strategies in the future.

#### Purpose/Methods

The objectives of this study were to assess the prevalence, risk factors, and self-health management attitude of varicose veins among nursing staffs. The study participants were 1596 nursing staffs using a structured questionnaire was conducted by a research assistant from one medical center in Taipei.The data analysis was performed using SPSS for Windows version 13.0. Descriptive statistics used were mean, SD, frequency, and percentage depending on the type of variable. Bi-variate associations between experiences of nurse occupations and exposure to occupational hazards related factors were examined by the chi-squared statistics and the independent t test. Multivariate analyses were performed using correlation analysis.

#### Results

The prevalence of lower-extremity varicose veins was 42.2% in the study population. The most obvious symptom were soreness and numbness, less than 23.8% medical treatment energetically. The higher rate of lower-extremity varicose veins found in this study may be related to an increasing trend toward superiority on job, working hours and stand for a long time. Correlation analysis revealed that oncological and surgical nurses were positively associated with lower-extremity varicose veins rates.

#### Conclusions

The rate of lower-extremity varicose veins among nurse was generally higher than that among other workers in Taiwan. Hospital Health professionals should develop strategies to improve the nursing practice environment, and start to use Mobile Nursing Station and portable seat, expected to reduce the incidence of varicose veins in Taiwan hospital suggested a need for policy interventions to improve the health of clinical nurses.

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## Personal approach to occupational risk assessment in the East Tallinn Central Hospital, Estonia

#### MARIPUU Sally

#### Introduction

Assessment of work related risk factors at organizational and unit levels is an effective measure for identification of general environmental hazards at workplace. However, the ultimate effect of a hazard reflects the interaction between environmental and personal characteristics. Group-level approach fails to

account for personal component in this counteraction, hence not facilitating the cohice of individual preventive measures.

#### Purpose/Methods

We are going to describe the application of a personalized assessment of occupational hazards in the East Tallinn Central Hospital (ETCH). The ETCH is the third biggest hospitals in Estonia employing 2360 medical and non-medical staff. Regular unit level assessment was applied in the ETCH in 2003; the personal risk evaluation was gradually introduced during the following decade.

#### Results

The occupational risks assessment is provided by the Work Safety Department. Every staff member gets risks assessed at three levels: unit, workplace, and personal level. The physical, chemical, biological, ergonomic and psychological influences are evaluated. Together with medical specialist suitability of working order to a particular person's needs is assessed. The staff member is advised taking into consideration the identified risks; if necessary, the workplace is modified. The results of the assessment are recorded to a personal electronic file.

#### Conclusions

Personalized approach to occupational risks assessment enables more personalization in counselling and preventive activities. Well informed workers know how to protect themselves, their colleagues and patients from hazardous environmental influences. Personal approach conveys the message of importance of every worker for the employer, which can be considered as a powerful motivational factor.

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Personal Protective Equipment in radiology: maintenance and

sanitization

#### CHIARINI Michele, ANTONIOLI Paola, RAISI Patrizia, BARBONI Alessandro, FIORENCIS Andrea, CAVEDAGNA Davide

#### Introduction

Radiation protection comprises a hierarchy of control measures. Engineered design and construction, administrative policy/procedures and personal protective equipment address the three fundamental principles of dose reduction: time, distance and shielding. In open beam x-ray applications where an x-ray worker must remain in the x-ray room, personal protective equipment (PPE) is the last layer of defence in reducing exposure to ionizing radiation after optimizing all other engineering and administrative controls

#### Purpose/Methods

Study the management of PPE in Laboratory of Hemodynamics to analyze the use , preservation, verify the integrity. This will be identified by a dedicated questionnaire. Develop a method of sanitizing and disinfection of PPE. 1: Evaluation of PPE anti X in the cath lab: number, types, etc. 2: Check defects, test shielding/attenuation provided by PPE 3: survey of use, meintenance, sanitization PPE anti X 4: analysis of survey data 5: microbiological PPE monitoring (BCT): sampling and analysis

#### Results

The research has shown that the PPE are shared and sanitization is sporadic. It necessary to develop a quality assurance testing of radiology PPE through operational procedures

#### Conclusions

The good quality and proper storage of personal protective equipment, especially in our workplace are essential for the protection of lives and health

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## Session P1.14: Supporting staff in preventing and managing non-communicable diseases

Empowerment of non-medical staff in hospital for health promotion

### ANG Seng Bin, GIAM Poh Eng, CHENG Shu Juan, TEO Chor Cher

#### Introduction

A pilot project of Health Ambassador Program was conceived to equip non-medical staff and lay volunteers with medical knowledge of chronic diseases and tips on healthy living

#### Purpose/Methods

Aim: To empower Health Ambassadors to promote and influence staff, patients and the community to adopt a healthy lifestyle, and to better manage their chronic diseases. Methodology: A total of 12 staff (8 enrolled nurse, 3 Specialist Clinic Assistant and 1 Clinic Coordinator) attended the program from May 2012. The program was designed as 3 hours session on weekly basis for 9 weeks. Topics include: Management of Menopause, Hypertension, Diabetes Mellitus, Hyperlipidaemia and Osteoporosis. Tips on Healthy Eating and Exercise and Counseling skills formed part of the programme. Teaching strategies include formal lecture and case studies. A pre and post-test with the same set of questions was used to evaluate the effectiveness after each session. Two follow-up feedback sessions with participants were conducted at 3 months and 6 mont



#### Results

There was an overall improvement of post-test results (pre-test mean of 7.8/10 vs post-test mean of 8.4/10). At the end of 6 months, 100% of the participants reported adopting healthier eating habits, increased physical activity, influencing family members to adopt healthier habits and 75% of the participants lost weight. Those with pre-existing chronic conditions, all reported to better understand their medical conditions and ability to better manage their own medical conditions.

#### Conclusions

Providing frontline non-medical staff and volunteers with medical knowledge in the hospital can improve their personal health whilst empowering them to influence behavioural change for healthier lifestyle in patients, their families and the community.

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What are the reasons for physicians' and techers' participation in health check-up and preventive programmes?

### ZALNIERAITIENE Kristina, MISEVICIENE Irena

#### Introduction

Regular health check-up enables to evaluate the health status, to define the risk of certain disorders or diagnose early symptoms of diseases. Active participation in screenings and preventive programs aimed to cervical cancer, breast cancer or prostate cancer decrease the morbidity in population, while early diagnose of such disorders not only improves the prognosis, but also decreases the health care costs. Physicians and teachers are two main professional groups in society, who have influence on attitudes of population on health promotion and disease prevention. Their active participation in preventive programs should be a good model for other society groups to take care of their own health.

#### Purpose/Methods

Aim of study. To evaluate the reasons for and prevalence of participation in health check-ups among physicians and teachers. Methods. The study was conducted from December 2011 to March 2012 in five regions of Lithuania. The sample was stratified, where from every region two hospitals (HPH were included also) and two schools were selected – one from regional capital and other from smaller city or town. The study consisted of two stages: 1) anonymous questionnaire for physicians and teachers, and 2) objective health check-up. Statistical analysis was conducted using "SPSS Statistics 20.0" software, including only those participants who underwent both stages of study – in

total, 513 physicians and 446 teachers (response rate 59.2% and 75.5%, respectively).

#### Results

In total, 93.0% of physicians and 98.5% of teachers underwent health check-ups with no differences across age or gender groups. When asked why they underwent health check-up, 36.5% of responders stated that it is personal interest to take care of their own health, 47.3% did it because of employer's suggestion, and 20.6% – because of legal regulations. The latter reason was more frequently reported by female physicians compared to female teachers (23.1% and 16.1%, respectively; P<0.05). Employer's suggestion was more relevant for older female physicians than male physicians and for younger male teachers than female teachers. Majority of physicians and teachers stated that they have participated in preventive programs. In preventive programs of cervical cancer, the teachers were more actively participating than physicians (86.2% and 70.2%, respectively; P<0.05). However, teachers and physicians were similar in mammography screening (74.0% and 65.2%) and prostate cancer screening (65.7% and 70.6%) participation. Study participants, who claimed that the main reason for participation in check-ups was personal interest to take care of their own, more frequently reported previous participation in preventive programs than other study participants: in case of mammography screening it was 77.5% and 66.4%, respectively (P<0.05), cervical cancer screening – 84.2% and 73.7%, respectively (P<0.05), and prostate cancer screening – 80.9% and 64.2%, respectively (P<0.05).

#### **Conclusions**

Majority of physicians and teachers report that they undergo healtch check-ups and do it mainly by employer's suggestion or due to legal regulations. Although the health maintenance is not the main reported reason to undergo health check-ups among physicians and teachers, participation in screening programs was higher among subjects who report taking care after their own health compared to other study participants.

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Factors associated with healthcare utilization among health department employees

### CHEN Ching-Chueh, WOUNG Lin-Chung, CHEN Mei-Ju

#### Introduction

Health workforce is critical for a functioning health care system. Healthy workforce ensures quality service. Healthcare professionals are users of the same system and their utilization needs to be assessed.

#### Purpose/Methods

This research aims to assess health care utilization among staff in Taipei Health Department and factors associated with utilization. It also explored the relationship between utilization and satisfaction. A questionnaire was posted on the intranet for employees to access and self-administer online. 1,355 completed the survey. Cronbach's  $\alpha$  indicated high reliability.

#### Results

Older employees and those with education below high school had a stronger loyalty to hospital where they worked. Administrative officers and those having received cancer screening had increased odds to use in-house service (OR=6.43, p<0.001; OR=2.88, p<0.01).

#### **Conclusions**

Hospital can encourage employees to use in-house preventive and curative services, and try to meet different staff needs.

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The Effects of Workplace Health
Promotion Project on Improvement
of Health-Check Abnormality of
Employees in High-Tech Industry

### YANG Ching-Chi, CHEN Fang-I, CHEN Chiu-Yu, CHEN Wen-Chun

#### Introduction

Health promotion is gradually valued in Taiwan. Most of employees in high-tech industry belongs to a group with high working pressure because of severe competition. Plus, insufficient physical activity and diet imbalance result in several health issues, such as chronic diseases, over-weight, insomnia, and physical decline. Because the employees' health greatly influences on production, building a safe and comfortable workplace and taking care of their health might enhance competitiveness of the industry.

#### **Purpose/Methods**

This study assembled 1,100 employees from a high-tech company in Southern Taiwan Science Park. The study gave the employees regular health check for one year in order to understand the correlation between their health promotion lifestyle and the health check. In 2012, 852 subjects were under the one-year health check for abdominal ultrasound, weight, and body fat, etc. By analyzing the health indices, we might evaluate the effect of the health promotion project on the employees.

#### Results

The result revealed that during the one-year project for weight losing, quit-smoking, diet education, and health club, the health indices of the subjects had been improved significantly.

Abnormality of abdominal ultrasound declined to 57.85% from 65.03%; blood pressure was from 25.22% to 19.15%; body fat was from 48.16% to 45.08%; girth was from 25.45% to 22.33%. The recheck rate of health case management reached to 82%.

#### Conclusions

The interventional health promotion project has significant effect on the indices of the health check. Liver is a very important organ in human body. The abnormal rate of the subjects, however, is greater than 50%. Therefore, the regular health check is needed for prevention from liver diseases. Also, the health of the high-tech employees is an urgent issue needed for improvement. The company should establish a good health management system for the employees for increasing their work efficiency and life quality, and achieving health promotion.

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Il Cuore si Protegge in Azienda: cardiovascular risk prevention for Health Staff of Maggiore Hospital

### COLONNA Manuela, MIGLIORINI Marco, PRINCIVALLE S, TOVOLI Daniele

#### Introduction

Cardiovascular diseases are the leading cause of death or inability all over the world. Within the project "Wellbeing at work" of the Local Health Unit of Bologna, and the subproject "Improve your lifestyle" addressed to health workforce we set up an action aim to identify professionals with "modifiable" cardiovascular risk factors eligible to an intervention of health education.

#### **Purpose/Methods**

During the periodic occupational medical surveillance professionals has been interview by special trained professionals, they have evaluated chemical clinical parameters like Cholesterol, HDL, triglycerides, and so on and the cardiovascular risk was calculated with a specific public domain software (cuore.exe) released by Italian "Istituto Superiore di Sanità". For every worker we use short term motivational counseling technique trying to promote best lifestyle, physical activities, changes in the diet, reduce alcohol consumption. For workers with a cardiovascular risk above 3% there is a direct involvement of general practitioner, for who smoke we proposed a course of smoke cessation, and for what had a BMI > 25 there is a direct involvement of a nutritional counseling.

#### Results

Workers with a cardiovascular risk above 3% has been interview three- four month later with a phone call to evaluate the persistence of the attitude of changing their lifestyle. The first step of the action began on july 2012 and ended on july 2013, the



second step started at that data and will end on july 2014 in the main Hospital of Bologna Local Health Unit.

#### Conclusions

98% of the 500 professionals involved participate the first step of the project. Of the worker with cardiovascular risk above 3% participating the heath promotion programs interviewed 3-4 month later 35% of them confirmed the persistence of the actions, moreover they will be include in the second step to made a follow up one year later. By the results, a positive issue is the involvement of the general practitioner to promote better lifestyle, instead we need to improve the communication issues and the efficacy of the counseling.

#### Comments

The action ispart of a broad intervention on the rightnutrition of health workers especially during the night shift

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### A health management model for hospital driving staff

### YEH Nai-Lun, TAI Hui-Jiuan, CHEN Ching-Yi, TSAI Jui-Yuan

#### Introduction

Professional drivers usually work long hours and lack physical activity. Epidemiological studies have suggested an excess risk for cardiovascular diseases in several categories of professional drivers. Accordingly, cardiovascular events may be a crucial concern in drivers with uncontrolled chronic diseases, such as hypertension and diabetes. It will affect not only the driver's health but also the passengers' safety. Therefore, health management for the driving staff in the hospital should be emphasized as well.

#### Purpose/Methods

Potential cardiovascular risks are identified in our driving staff members according to the employee health examinations. A health management project for drivers is established by governed staff and medical professionals. The annual electrocardiogram and treadmill exercise testing are offered for risk assessment. Blood pressure records are mandatory before driving. Blood sugar control should be reported in drivers with diabetes. The criteria for referral for professional consultation are formulated and our occupational health nurses serve as case managers.

#### Results

There are 7 driving staff members in our hospital. Overweight accounts for 86%, and up to 70% fulfills the criteria of metabolic syndrome. Although none of them has had evidence of ischemic heart disease yet, the average estimated 10-year cardiovascular risk is 10.6±8.4%. Occupational health nurses check on their

blood pressure records every 1-2 weeks. All of their blood pressure values are within acceptable range in the following period. Diabetic drivers are referred to dietitians for better glycemic control.

#### Conclusions

Health management is a process to manage health risks in an individual or a focused population. It aims for disease prevention and health promotion. Health risk management for high-risk groups, such as drivers, should be taken into consideration as a first priority. Implementing a health promotion program leading to a healthy lifestyle can be the next step. In hospital, we can utilize and integrate healthcare resources for our employees to promote their health and to build a safe workplace.

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## Promotion of Breast Health in Taiwan Adventist Hospital

#### HSIEH Chia-Ming, WEI Shu-Ting, HUANG Yu-Jia, HUANG Hui-Ting

#### Introduction

In the past 5 years, 7 female colleagues were diagnosed with breast cancer. Most of them had regular screening mammography(SM) before breast cancer was diagnosed. Diagnosis ability of the radiologist was questioned. Survey showed that most of our colleagues have insufficient knowledge of the disease though working in hospital. Since long-term survival rate of early breast cancer is over 95%, early detection of the disease is the key to protect our female colleagues.

#### Purpose/Methods

There is 811 staff including 311 male and 680 female. To increase breast cancer awareness and motivation of screening, breast health education (BHE) for staff was started in March 2013. For early detection, National Breast Cancer Screening Program provides free screening mammography for 45-69 year-old female every 2 years since 2009. From July 2013, our hospital provides free screening breast sonography (SBS) for those aged over 40 and 30-39, annually and every 2 years respectively.

#### Results

BHE has been held 28 times at different Departments and 389(48.0%) staff has attended, including 36 male and 353 female. Post lecture test confirmed that staff understood better of breast cancer epidemiology, importance of screening and screening program. Post lecture questionnaire showed 99.9% satisfaction rate. In 2013, 134 female staff was eligible for SM, and 61(45.5%) staff completed mammography. A total of 513 female staff was eligible for SBS, and 71(13.8%) staff underwent sonography. No breast cancer was found.

#### **Conclusions**

Though the program was started less than a year, BHE was highly appreciated by staff. Only 45.5% of those ≥45 years old accepted SM. It is imperative to urge the rest of staff to undergo SM. Among the eligible staff, only 13.8% completed SBS. There are several reasons for the low rate, including limited examination time, hospital accreditation preparation, preferring female doctor etc. It is strongly advisable to continue the program to promote breast health of our colleagues.

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"Employee Caring Program" to Increase Mammography Examination Rate among Nurses in A Medical Center

#### HUANG Lian-Hua, HUANG Shier-Chieg, HWANG Yueh-Jiau, SU Chiu-Ping, HONG Ming-Ying, LAI Yeur-Hur

#### Introduction

Breast cancer is one of the most threatening diseases on women in Taiwan and worldwide. For most clinical nurses who are under big stress and rotated shifts may increase the risk of cancer. Mammography has been recognized as a sensitive examination to early detect breast cancer. However, there are still limited numbers of nurses receiving this examination.

#### Purpose/Methods

In this study, we sought to explore the barriers of not receiving the examination, and develop an 'Employee Caring Program' and examine its effects on increasing the completion of mammography among nurses in a medical center in Taipei. In 2012, there were only 69.3% of nurses completed this examination. We developed a survey to explore the reasons of not taking this examination on those nurses not yet receiving the examination.

#### Results

The results revealed (1) long schedule-to-examination time, (2) lack of flexibility in making appointments, (3) bad previous experiences, such as pain, and (4) worry about having radiation during the examine. Following the results, the 'Employee Caring Program' has been developed and followed those nurses with supportive followings and coordinate related departments by a nurses coordinator to shorten the waiting time and increase the message alert system. The results showed the mammography completion rate is up to 100% during 2013.

#### Conclusions

From the core value of employee care and through multidiscipline teamwork, this project efficiently increased the willingness to receive examination in female nurse population, and actually enhanced the mammography examination rate.

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Alcohol consumption among health professionals: an action-research in order to promote healthy lifestyles

#### VITALI PIETRO, CAMPANIELLO GIOVANNA, FONTECHIARI SIMONA, MONTALI FRANCESCA, PELAGATTI SANDRA, VEZZULI MARTA, CHETTA ALFREDO ANTONIO, SIRCANA LUCA

#### Introduction

International literature has provided evidence about the implementation's effectiveness of restrictions on alcohol consumption to improve the population overall health. In Italy the application of the Law n.125 of 30.3.2001 (in place since 2002) led to a decline in the National rate of hospitalization for diagnosis entirely attributable to alcohol and in mortality from cirrhosis of the liver (Health Ministry, 2012). The Law's impact on the Italian population health indicators encourages further the its effective implementation, especially between health professionals.

#### Purpose/Methods

Purpose: a) Stating Organization's commitment to the safety and health promotion. b) Enhancing safety culture and promoting healthy lifestyles in contrast to professionals' alcoholdependence problems. Methods: At the Parma University Hospital, from January to April 2013, an ad hoc questionnaire has been administered to 914 professionals (CI = 99%), on a population of n=3.150. The quantitative survey has detected the professionals' habits to taking wine/beer/spirits in everyday life. all Results have been spread to professionals. managers/coordinators and involved Services.

#### Results

The 28% has declared to not consume neither wine nor beer, while the 47% has affirmed to consume them only occasionally; the 16% has said to consume an approximately ½ liter daily dose, while only 1,3% has admitted a daily consumption of wine/beer equivalent or higher than one liter. The 1% has admitted a regular use of hard liquor, the 20% has affirmed to consume them only occasionally; instead the 71% has affirmed to not consume at all hard liquor.

#### Conclusions



Through this survey the trend of the phenomenon of alcohol consumption among professionals of Parma University Hospital has been better investigated. The results will be disseminated to professionals like a part of the successive prevention campaigns.

#### Comments

Knowing the epidemiological data related to professionals' alcohol consumption (even if only occasional and outside of the work context), is a critical step to promote a culture of health and safety as well as to improve behaviours in the workplace. The application of a self-reported instrument can be a good strategy to increase professionals' involvement and attention on health and safety issues.

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## Session P1.15: Supporting continuity of care and home care

Continuity of care among LHS (Local Health Services ): hospitalization rates efficacy

BICEGO Livia, MISLEJ Maila, TRABONA Rosolino, BALLARIN Monica, ANDREASSICH Valentina, MORO Paola, GREGORIS Antonella, NEGRO Anna, UMECH Sabrina, PEROSSA Ornella, COMUZZI Paola, TASSONE Rita, ODONI Elisabetta, STEFANI Sabrina, PANGHER Stefano, PACILEO Ida Eva, SOLLAZZI Elena, PADOVAN Gabriella

#### Introduction

Health situation in Trieste is featured by few criticality: increasing prevalence of people affected by multiple diseases, risk of complications, late and incomplete post-acute healing, needs of artificial nutrition and lifesaving equipment. Social contest is featured by criticality too: solitude, loss of care, economic problems, poor family support, inadequate housing, social tissue disintegration, increase in life expectancy, repeated hospital admission. Hospitalization rate can be reduced by careful hospital discharges, adequate hospital and home care, family's support, health education.

#### Purpose/Methods

This integration hospital/territory process has the purpose of ensuring to fragile people the right to live in their own home thanks to creation of a new model of territorial taking charge.

Hospital nurses activate signal of "protected discharge" within 72 hours from hospital admission. Within 72 hours from this signal territorial health service nurses evaluate the case and write a report in agree with general practitioner and they together establish individual health plan activating all services and resources needed.

#### Results

Hospitalization rate went down from 236/1000 in 1996 to 156/1000 in 2012. This decrease is possible thanks to territorial healthcare service that every year realize 3500 individual home care plans, more than 5000 "protected discharges", 3000 admission in healthcare residences, 7000 persons assisted by cancer services, 12000 by cardiologic services, 4000 by psychiatric services, 200000 requests to urgency/emergency territorial service. These services had the "strength" to create a network using all their institutional and not institutional social and health resources.

#### Conclusions

The continuity of care of fragile patients after hospital discharge, the territorial nursing service (that taking charge persons at their own home too), the network with MMG and others local health services can obtain a decrease of hospital admission and repeated hospital admission. The integration with local social care services fight against timetable: fast the health ones, slow the social ones. The need of continuity of care is still high and its field of action can be improved.

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Not alone, but together: From a cardiologic rehabilitation hospital to the community through voluntary association - An Italian experience of education and health promotion

#### MUZZINI Maria Luisa, MANARI Antonio, ZOBBI Gianni, TIRELLI Guido, RICCÒ Daniela, MAZZI Giorgio

#### Introduction

Considering that the health system has an impact of no more than 30% on the overall health of the population, it is an ethical and organisational imperative TO CREATE ALLIANCES TO SPREAD the culture of prevention and EMPOWERMENT in the communities in which the hospitals operate, in order to prevent the early onset of chronic diseases, to delay the devastating effects of them, and to maximise the efficacy of the actual care and rehabilitation interventions. The experience proposed regards the Cardiology rehabilitation ward of the ASMN of RE, part of the S. Anna Hospital of C. Monti, which, for some time,

has been collaborating with the voluntary association IL Cuore della Montagna and the bodies and institutions of the Mountain Community, creating numerous health education and empowerment actions with the population and spreading the culture of prevention.

#### Purpose/Methods

Creating a new vision of the hospital not only as a place in which professionals "provide Care and Rehabilitation", but also as a centre for spreading health culture based on empowerment with the patient, the caregivers and the entire community, jointly responsible with the institutions for the construction of an aware and active community in the implementation and spread of healthy behaviour, where every citizen is in charge of their own health and the primary active partner in the process of care and rehabilitation.

#### Results

The Cardiology Rehabilitation Centre of the S. Anna Hospital, along with II Cuore della Montagna, has been planning continuous initiatives in the mountainous areas for the last five years: -"Tende della Salute" in the towns of the Mountain district, during which the main cardiovascular risk factors and aspects of cardiovascular disease were illustrated and free total cholesterol, arterial pressure, heart rate and BMI measurements were offered - Walking groups in the National Park -"II cuore dell'oca"...training in schools

#### **Conclusions**

In the C. Monti Community, the professional connection between the Cardiology Rehabilitation professionals, patients and former cardiology patients, Il Cuore della Montagna and the Institutions has promoted the spread of health culture in the citizens and the entire community, in which an increasingly large amount of healthy behaviour can be recorded, such as the implementation of REGULAR AND CONSTANT PHYSICAL ACTIVITY AS AN ESSENTIAL TOOL FOR IMPROVED QUALITY OF LIFE. The experience can be spread to all the hospitals in the Community.

#### Comments

Considering the current economic crisis, the health organisations must think again about a NEW deal of public healthcare systems which, through alliances with the institutions and local areas, see the hospital leaving its monolithic care role to promote health throughout the whole area, creating empowerment with the community and spreading health culture at all social levels, also in order to maximise the added value of care within the facilities, in a holistic vision of the person and the local system/community, of which the hospital is a part.

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## Outreach Physical Therapy Program for Disable Patients in the Improvement on Activities of Daily

### Living and the Ability of Physical Balance in Southern Taiwan

#### TSAI Ming- Lun, WANG Shu-Yi, WU Ming-Chen, LIN Ming-Nan

#### Introduction

Taiwan is an aging society, especially in rural area of southern Taiwan. The older and disable population in also increasing. Access to hospital of these patients is a big problem. For these patients, long-term self physical therapy at home is important for their quality of life and improvement of health inegualty. Short-term out-reach intervention provided by physical therapists to improve their activities of daily living and the ability of physical balance, we only have limited information. The aim's of this study is to understand whether the short-term intervention of physical therapy in home care can improve the activities of daily living and the ability of physical balance or not.

#### Purpose/Methods

There are 133 disable patients included in this service, and each patient accepted 2-6 sessions of physical therapy or occupational therapy in home-care services in 2013. We provided 50 minutes activity in each session on weekly basis. Assessment of patients was performed at first and the last session of therapy using the instrument is the Modified Barthel Index, Berg balance scale. The Repeated Measure ANOVA was used to analysis.

#### Results

The valid sample is 111 patients, 55 males and 56 females, and the average age is 76.7 y/o. For the degree of disability, 56.8% is serious, 36.9% is moderate and mild disability 6.3%. 65.8% of patients suffered from CNS diseases such as stroke. 26.1% has musculoskeletal system diseases (ex: bone fracture, THR, TKR). 8.1% others (ex: deconditioning). The results of the analysis, the activities of daily living has improved (F(1,110) = 36.721, p<.001; Effect size=.25) and ability of physical balance (F(1,110) = 67.026, p<.001; Effect size=.379) improved as well.

#### Conclusions

The out-reach home short-term physical therapy intervention could improve the activities of daily living and ability of physical balance. It is important for the improvement of the health inequality in rural area. We suggest health welfare and long-term care departments should provide short-term physical therapy in home-care services which will reduce the medical cost and have cost-effectiveness in long-term care.

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## Action research for sustainable health care in adults with intellectual disabilities

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#### Introduction

The adults with intellectual disabilities in Taiwan adopt a primary mode of medical service for institutional care. Some of the common health problem includes verbal cavity, eye sight, hypertension, and etc. There are plenty of research surveys indicating a fact that the adults with intellectual disabilities have a higher tendency to get diseases as well as using medical supply. Very likely, it will end up a difficulty to go to see the doctor at a higher disease severity due to the limbs and emotion is uncontrollable.

#### Purpose/Methods

This study is aimed at utilize community coalition action theory (CCAT) to develop a follow-up medical care service mode for the adult with intellectual disabilities. Taiwan Care for All Association (non-government organization, hereafter referred to TCFA) provided free health screening to make sure all the problems and needed to be done. TCFA developed an action project to set up a mode for all appropriate integrative medical care with local hospitals and clinics. It's a way to improve the quality of life of adult with intellectual disabilities.

#### Results

TCFA medical team provided health promoting care (health education guide for nutrition facts and sport descriptions; activities to promote mental health care; health screening include blood pressure, blood sugar, oral cavity, eyes, abdominal supersonic and whole body physical examination.), and gave the feedback of screening results to the care institution. Besides giving care and advice, TCFA also assisted to make connection with the local hospitals and clinics that opened up special time to them for medical service at specific divisions. TCFA medical team will continue to give general health screenings to early discovery and treatment.

#### Conclusions

Based on three levels prevention of public health, TCFA tried to prevent or reduce the chance of disease through health promotion, early medical care and health protection, and connect a complete heath care network (to promote the accessibility of medical care, decrease severity of illness and medical costs). Hopefully, those with intellectual disabilities can reach to a healthy state of balancing the body, the mind, and the spirit. TCFA will also play the negotiator role to engage with all social resources such as materials, human resource, and etc.

#### Comments

Accordingly, the above health care mode can be carried out continuously. TCFA gave advice and encourage a couple of related social organizations and government units to promote it

especially for intellectual disability facilities at rural areas. By improving their health condition through human care and health promotion, it will facilitate health promotion and medical resource to realize efficiency maximization in using.

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### Integrated care for rare diseases such as spinocerebellar atrophy

#### CHIU Chung-Min, LIU Chin-San, LO Lun-Chien, WEI Ta-Sen, KUO Chien-Cheng

#### Introduction

Rare diseases like spinocerebellar atrophy are usually incurable in the present times. Patients could only take routine medicine such as Idebenone and Vitamin-E, or participate general rehabilitation training. Because of complexity of their diseases, they usually have trouble on choosing other appropriate physicians in addition to the neurologist. Due to ambulatory inconvenience, they reduce outdoor activities. Our team try to integrate suitable medical service, including multidisciplinary cooperated outpatients departments (OPD), Tai-chi exercise, and professional paramedical consultation.

#### Purpose/Methods

To solve inconvenience of visiting several physicians, we set up a multidisciplinary medical team for integrated care for patients of rare diseases, such as spinocerebellar atrophy. Beside neurology department, we included rehabilitation, psychiatry, obstetrics, traditional Chinese medicine, dietitians, social workers, clinical psychologists, pastoral care staff, case managers, and even complementary exercise-Tai-chi instructors. We established a special independent neurological out-patient clinic once every week for rare diseases, and the appoint-limited number was less than 15 for maintaining high quality medical service.

#### Results

After setting up the referring process by help of the case manager since May of 2012, growth rate of SCA patient number of the special out-patient clinic every month was 31.5% (one year after May of 2012 compared to two and half year before May of 2012, patient number grew from 25.4 to 33.4). By a five-level Liker scale, most subjects were" Very satisfied" to "Satisfied" with our overall service.

#### Conclusions

With the smooth and convenient process of visiting different specialists, most patients of rare diseases like SCA were quite satisfied with our service. Not only physical, but also mental and social needs could be met by our service. During one year follow up, no participants quit our program or suicided. They became hopeful and positive about their disease, after we integrated our

medical service. Patient-centered holistic care will be the trend, especially for incurable rare diseases.

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## Changing perspective in the primary care - what do they need from us?

#### **WALLIN Hanna**

#### Introduction

Currently, health promoting and medical services do not reach all of the population equitably. Primary prevention and health promotion efforts within health care services should reach groups who are at particular risk of poor health. As part of the development towards equitable care, the Swedish Association of Local Authorities and Regions (SALAR) has started the project entitled "Care on equal conditions". The project is an agreement between SALAR and the Swedish Government during the years 2011-2014.

#### Purpose/Methods

The work is based on the local situations of each participating primary care unit, all working in areas with a high level of vulnerable groups. Most of the development work is carried out directly in the health care units local areas. The purpose of the project is to identify and develop methods for achieving equitable care responding to local needs. We cover all aspects of health and medical care – from reception, accessibility, treatment and cohesive care processes to management and governance.

#### Results

A steering committee has set four areas to work within: 1) Access for groups that are not reached by health and medical services today and are at particular risk of ill health, 2) Communication skills in health services, 3) Access to health promotion and preventive health efforts and 4) Patient satisfaction. The final results will be presented at a conference March 2014. The project is evaluated by researchers from the School of Health, Care and Social Welfare at Mälardalen University.

#### Conclusions

In Sweden welfare services such as health care have a major impact on population health. The health care service is an important arena and actor that can reduce health inequalities. It is possible and important to develop methods within health care units to be able to reach population equitably. The methods been tested and evaluated in this project are intended to be distributed and implemented national.

#### **Comments**

Health care units within this project has been working to change perspective. How do we change the health care and methods for health promoting so they correlate with the needs of our population? How do we know different needs in different areas?

This has been a trip from the perspective of "why don't they do as we say" to "what are we actually telling our patients". Listening to the need of the patient.

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Hospital cooperation in the long-term management of tracheostomized and ventilator dependent patients at home

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#### Introduction

A close cooperation between hospital and territorial health services is a prerequisite for appropriate and effective home management of very complex patients, such as those with tracheostomy, either dependent or not from mechanical ventilation. Since 2005 the Health Authority of the Reggio Emilia province (Italy) established a formal programme promoting the activity of hospital specialists at the patients' home in cooperation with the territorial nurse team and general practitioners.

#### Purpose/Methods

Purpose of the study was to verify the feasibility of the programme and outcomes in terms of reduced access to hospital for Pulmonology control and invasive procedures such as arterial sampling for blood gases and periodic change of the tracheostomy cannula. Before this project all Pulmonology evaluations and procedures required an hospital access. The home intervention of the Pulmonologist can be either planned or at demand after a request of the case manager. Data were collected retrospectively.

#### Results

From 2005 to 2012 there was a progressive increase in the number of patients and home visits of the Pulmonologist: 2005: 4 patients/5 visits; 2006:4/10; 2007:7/17; 2008:14/60; 2009:15/65; 2010:30/130; 2011:40/185; 2012:56/218. At the end of 2012, 48 patients were on follow up (mean age 52, range 3-82 years, M/F 28/20) 45 with tracheostomy of whom 26 on mechanical ventilation >16 hours/day. Three patients were on noninvasive ventilation. Invasive procedures were performed by expert personnel and major complications were never reported.

#### Conclusions

Expert hospital specialists, such as Pulmonologists in our case, can easily cooperate with territorial health services (nurse team



and general practitioners) in managing very complex patients, avoiding unnecessary access to hospital even for invasive procedures.

#### Comments

A strong partnership between hospital and territorial health services is in general an important opportunity to manage chronic disorders in the long term, not only at the moment of discharge to home or to a long-term care facility. Our report demonstrates in particular the applicability and usefulness of the model also in the case of patients affected by very severe respiratory conditions, independently from the cause, and requiring clinical evaluation or procedures that are usually performed in a hospital setting.

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## Homecare pharmacy services for high risk patient in Changhua County, Taiwan

#### NG Sock-Ping, WANG Shu-Li, CHIEN Su-Yu

#### Introduction

Patients with multiple chronic problems often accompanied with complex medication regimens. These populations were at risk with medication related problem, such as various types and numbers of prescription which will decrease the adherence rate and increase the risk of misused. The literature shows that pharmacists can improve clinical effectiveness and reduce medical expenses for homecare patients. Changhua County Public Health Bureau accepted subsidy from Ministry of Health and Welfare to established homecare pharmacy services care model for high risk patients.

#### Purpose/Methods

We included high risk patient defined as above 40 y/o with at least 2 chronic diseases from 7 hospital in Changhua County between 1 January to 30 November 2013. Homecare pharmacists are trained and qualified by Taiwan Pharmacist Association. During hospitalization, pharmacist obtain inform consent from patient and implement 2 home visits after discharged. Patient visit record form was developed by Center for Pharmaceutical Care Development Taiwan Pharmacist Association.

#### Results

We included 89 patients with mean age 71.7 +/- 12.4 y/o. Hypertension (65%), DM (45%) and hyperlipidemia (26%) was the main chronic disease. The mean medications per prescription was 7.2 +/- 3.2 items. Patients have to administer 10.6 +/- 5.4 pills/day. Poor written and reading ability (36.5%) was the major barrier for properly drug use, Homecare visit pharmacists provided patient education (76%), assist patient to fill the pill box

(12.3%) and communicate with physician for medication related problem (24%).

#### Conclusions

Pharmacist participate in homecare visit will provided individualized and systemwide continuity of care to the patients. Effective management of medication by homecare patients affected by home environment, family interaction pattern, daily life-style and self monitoring ability. Pharmacist has erected a bridge through which patients can communicate with their physicians, provide seamless patient care, and help patients to solve all medical issues, which saves the patient the trouble of resorting to different channels for various medical problems.

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## Applying Importance-Performance Analysis to Evaluate the Service Quality of Home Care

#### SHIEH Jiunn-I, WU Hsin-Hung, HUANG Kuan-Kai

#### Introduction

In Taiwan, the importance of home care service is becoming more and more realized as a major foundation upon which other parts of the health care system rest. As the whole medical environment of Taiwan is influenced as the whole social economic development and policy, the government looks after the competition for home care service. Under the limited resources, it is an important issue to identify key factors to promote the medical service quality of home care and market competitiveness.

#### Purpose/Methods

The purpose was to evaluate the service quality of home care. The questionnaire based on the service quality (SERVQUAL) model with twenty seven questions was analyzed by importance-performance analysis to identify major strengths and weaknesses. The survey was taken on July 26-August 9, 2013 with 119 patients or their families at home care service located in Changhua City, Taiwan. A total of 116 valid questionnaires were received, and the valid return rate was 97.48%.

#### Results

Ten items were identified as the major strengths of home care service. Two most important items are "Healthcare personnel provide professional service knowledge and technologies" and "Healthcare personnel have professional and technical capabilities". In contrast, four items, classified as major weaknesses, were "Services provided by healthcare personnel meet my needs", "Service items provided by this institution meet my needs", "The institution's support center can respond

questions in a timely basis", and "Healthcare personnel are willing to provide social welfare information".

#### Conclusions

This case study uses importance-performance analysis based on SERVQUAL model to evaluate the service quality of home care. To maintain the competitive advantage, the home care service needs to concentrate on these ten major strengths. On the other hand, if the home care service is to remove customer dissatisfaction immediately, four major weaknesses should be placed in the highest priority for continuous improvement. In doing so, the management team can significantly improve patients' acquisition and retention.

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The Effect of Health Promotion in Disabled Population in Remote Area After the Introduction of the Homebased Rehabilitation Programs

#### WANG Chung-Yuan, LIOU Fang-Chun, CHEN Chien-Ming, TSAI Ming-Chang, NEOH Choo-Aun, CHIA Pei-Fang

#### Introduction

The success of Taiwan's National Health Insurance (NHI) system attracts widespread praise from the international society. However, the availability of medical care in remote area is limited. Without the convenient public transportation system and mature social welfare policy, these disabled people are difficult to regain their health. Therefore, the aim of this study was to investigate the effect of health promotion for disabled people in remote area through the home-based rehabilitation service.

#### Purpose/Methods

Social affairs department of the Pingtung county government selected the patients list and approved the number of rehabilitation service. After physiatrist's systemic evaluation, the subjects received 4 to 12 times rehabilitation service. Physical therapy or occupational therapy, life style instruction and caregiver training were included in the programs. Activity daily life performance (Barthel Index), Instrumental activities of daily living (IADLs), Euro quality of life five dimensions questionnaire (EQ-5D) and Postural Assessment Scale for Stroke Patients (PASS) were used to measure the training effect.

#### Results

Seventeen subjects (nine male and eight female) were included. The diagnosis included stroke(10), cerebral palsy(3) and others(4). Nine of them were aged population over 65 years old. Improvement were noted in PASS ( $\rho$ <0.001) , EQ-5D ( $\rho$ =0.023)

and IADLs (p=0.004). Among the items in Barthel Index, only walking on the level ground showed statistically significant differences (p=0.041). Among the dimensions in EQ-5D, mobility and self-care had better training effect than usual activities, pain/discomfort and anxiety/depression.

#### Conclusions

In our study, through the provision of home-based rehabilitation service, disabled people in remote area promoted their health. No only the patients but also their families were satisfied with their better health status. Taiwan is facing the pressing issue of aging population. Home-based rehabilitation service should have critical contributions in the developing long term care system. The number of the subjects and the rehabilitation frequency were limited. Further study might be needed.

#### Comments

Compared with 88 rehabilitation clinics and hospitals in Taipei, there are only 16 in Pingtung. The number of rehabilitation personnel is also quite different; 770 physical therapist (PT) and 370 occupational therapy (OT) in Taipei, while only 108 PT and 54 OT in Pingtung. Living healthy is human right, no matter where does he live. For the people in remote area, home-based rehabilitation service could play an important role in decreasing their functional disability and improving their quality of life.

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The Experience of Team
Communication in Tube Feeding
Patients for Hospital Discharge
Planning in Eastern Taiwan

### YING -YI Hsieh, SHI-YU Liu, LI-XIA Tong, WEN-LI Wang

#### Introduction

Enteral tubes are frequently inserted as part of medical treatment in a wide range of patient situations. "Nutrition Diagnosis terminology" the establishment of nutritional problems to be able to have a very clear and detailed narrative, so it is also suitable for all circulation in the area of nutrition medical team.

#### Purpose/Methods

The purpose of this study was used the U.S. Dietary Nutrition Society nutrition diagnosis and intervention standardized terminology to investigate patients who used tube feeding and execution discharge planning. During hospitalization, dietitians perform a complete nutritional assessment (to ward and perform at least twice a nutritional assessment) and telephone follow after discharge. A total of 70 patients participated in this study from January 2012 to December 2012. Statistical methods used in this study is descriptive statistics.



#### Results

The results found that the first nutritional assessment during hospitalization for cancer patients in terms of nutrition diagnosis showed "Inadequate enteral nutrition infusion" majority (40%). The terms of nutrition diagnosis of chronic patients showed " Adequate caloric intake"majority (34%). After the team's care, both of them showed" Without nutritional related problem recently" before discharge. However, this study found that part of cancer patients after discharge in terms of nutrition diagnosis showed " Limited adherence to nutrition-related recommendations "(12%).

#### Conclusions

We found that the cancer patients in eastern Taiwan prone to nutritional problems. Will report the problem in a team meeting to discuss a solution.

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## Session P1.16: Creating health promoting healthcare systems and organizations

Health promotion at the national level in relation to improving the quality of health services

#### KALVACHOVA Milena, STEJSKALOVA Veronika

#### Introduction

Ministry of Health (MoH) of Czech Republic (CZ) considers a health promotion as an main part of the quality of health care in hospitals. The WHO Program/Health Promoting Hospitals leads the hospitals in CZ to put greater emphasis on health promotion and disease prevention, and not only on the diagnostic and therapeutic services. Therefore the CZ has been a member of the HPH Network since 2003 (currently 10 hospitals) and through the Ministry of Health also participated in several international projects such as check WHO Standards and Self - Assessment Manual, the "DATA" project, the "PRICES-HPH" project. The health promotion was defined in law no 372/2012 Coll., on health services in April 2012. CZ has participated in the HPH Recognition project since 2011 (8 hospitals) with the aim of evaluate whether there has been in the HPH hospitals to progress in health promoting activities. HPH - CZ Intervention Group (3 hospitals) completed the Recognition process in December 2013 as the first in the World. The Control Group (5 HPH hospitals) will be completed Recognition project in June 2014, where we also expect representative results.

#### Purpose/Methods

The aim of MoH and participating hospitals is to implement the project successfully and permanently improve the quality of health promotion activities in hospitals. The main methodological guidance is the Manual WHO-HPH Recognition project. But, because it is a pilot project, it was necessary to ensure close cooperation between the MoH, hospitals, the WHO Office in the Czech Republic and HPH Secretariat in Copenhagen. In order to successfully cooperate with all stakeholders, it was established a contact person at MoH, which was fully available, either on the phone or e-mail. Furthermore, the HPH national coordinator visited the each hospital and discussed some referred questions with the management of hospital. There were some workshops by organized MoH. Two external auditors from WHO/HPH Secretariat compared data of base and control package for the IG in the days 9 - 11 December 2013 The same system is also valid for still working CG and Site visit of Control group will be realized in June 2014. The MoH will be arranging an informative seminar for all of CZ HPH hospitals, where IG shall forward its know-how and insights to colleagues from the CG at the beginning of 2014. Subsequently we would like realized a workshop with other providers of health services with aim to inform them about the meaning of the project. We hope, that this way we will get the next members into HPH Network.

#### Results

On the basis of the internal audit, which the hospital carried out within the framework of the evaluation of the basic package, an action plan of the quality has been elaborated. This action plan works as an internal overview and guideline what is needed to improve and what is fine and was updated after the evaluation of the control package. All HPH hospitals of the IG was noticed visible progress. Improvement was minimally one rung up. Two hospitals received the HPH gold certificate for filling up of standards in the 93% and 98%, one of the hospital received the HPH silver certificate. Behind an improvement is mainly cooperation of hospital management with interested departments, of course the willingness and interest of the employees of the department who are in direct contact with the patient, and last but not least a willing cooperation of the Ministry of Health (National HPH Coordinator).

#### Conclusions

Properly set cooperation between HPH National Coordinator (MoH) and members of hospitals is crucial for the correct, effective and successful implementation of the WHO requirements for HPH Recognition project. The Ministry of Health very appreciates an effort all of the Member hospitals in implementing and realization of the requirements for implementation and development of the activities to promote health through the HPH standards. Because we are fully conscious of the personnel and time arduous requirements, we try to help them in all directions. Very important is also the cooperation of MoH with the WHO - office of Czech Republic, which provides an important support to the MoH.

#### Comments

The Ministry of Health of the CZ considers the HPH Recognition project as the very needed. Searching of possibilities how affect the existing system of providing of health services towards more emphatic promotion of patient's health and employee's health is

for CZ fundamental. The CZ considers the HPH Network membership as one of ways how to increase the quality of provided health services and thereby to increase patient satisfaction in all aspects.

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Improving health care quality in hospitals through health promotion – A prospective descriptive study

# CRUZ DIAZ Veronica, BAGOT PRATS Marta, CRUZ DIAZ Raquel, CEPEDA BAUTISTA MªMercedes, AMOR JULIA Mª Auxiliadora, CASTANERA DURO Aaron, BERTRAN Carme, JUVINYA Dolors

#### Introduction

In the early 90s, the World Health Organization (WHO) proposed an international initiative to encourage hospitals to participate in health promotion (HP). Girona University Hospital Dr Josep Trueta joined the HP hospitals network in 2005, and has since then implemented HP standards in improving the healthcare quality.

#### Purpose/Methods

The aim of this study is to determine the patients' perception about including HP in the hospital's daily clinical practice. A prospective descriptive study design was used with a study sample of 195 patients admitted to Girona University Hospital Dr Josep Trueta from June 2012 until February 2013, included through convenience sampling. Sociodemographic, clinical, and perceived health -related perceptions of HP in the institution were studied through an anonymous survey.

#### Results

195 patients were analyzed with a mean age of 56.55 years (SD 17.95), 55.4% were men. 60.2% were married, 34.9 % were retired and 13.5 % were working actively. 37.6 % consider their health as good. 55.7% were unaware of that HP activities were performed at the center. 78.3 % reported knowing their rights as users of the institution. 66.7% of patients had knowledge about their disease and 65.5 % received treatment and follow-up information at discharge (p = 0.000).

#### Conclusions

Although HP is a consolidated strategic framework and forms a part of the patients' healthcare and the healthcare quality in the joint proposal of Catalonia's HP Hospitals, less than half of the patients had knowledge about the health promoting activities carried out in the institution. The information provided to the

patients must be broader and better fused in the different care

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#### **HPH Autumn School in Estonia**

#### HÄRM Tiiu

#### Introduction

From September 30 to October 1, 2013, the Estonian HPH Network held a HPH Autumn School in Tallinn, Estonia, titled "Strengthening the Partnership between Public Health and Health Care System for Better Value and Sustainability". The event was co-hosted by the Health Promotion Administration, Ministry of Health and Welfare in Taiwan. Lectures and participants from Estonia, Taiwan, Germany, Finland and Lithuania, altogether 80 persons, contributed to the program and support, sharing and learning from "Good practice" examples in the implementation of health promotion in hospitals and health services.

#### Purpose/Methods

One of the main strength of the HPH schools and the HPH teaching activities are the possibility to tailor and fit the schools into the situation, needs, and requests of the local host. The aim of the school was to promote the possibility of hospitals and health services to do more for public health (1), to provide health promotion in mental health settings (2), age-friendly health care (3) and implementation of tobacco free health services (4).

#### Results

1) A "health promoting hospital or health service" is defined as an organization that aims to improve health gain for its stakeholders by developing structures, cultures, decisions and processes. The implementation applies a setting-based approach involving the change process of the whole organization to achieve quality improvement in health promotion for patients, staff and community. 2) Within mental health settings health promotion is widely unknown or not used as a part of all day practice. Nevertheless, there is enough knowledge about the principles and methods of mental health promotion and as well a strong evidence of successful implementation strategies. Thus it makes sense to use salutogenic approaches within care for mental health promotion, prevention and recovery. 3) Older persons are important users of health care services. Developing a framework of aged-friendly health care was aimed to reduce the health service barrier of the elderly population and improve their health gain. 4) Initiative for smoke-free surgery - the patient's own motivation to stop smoking is the cornerstone of smoke-free surgery. Studies have shown that having surgery increases motivation to change lifestyle. Health professionals are well advised to make good use of this sensitive period. A great deal is achieved if they, with help of smoke-free surgeries, at least manage to decrease wound, cardiovascular and pulmonary complication and need for further operations.



#### **Conclusions**

Many participants found added value from participation in the HPH Autumn School in Estonia through getting access to contacts and interactive discussion, enabling the exchange of experiences and know-how with a wide range of interested health professionals. Hospitals had demonstrated themselves to be a powerful partner for the public health in supporting and promoting population health.

#### Comments

Poster presentation

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## A Model of Hospital Information System Acceptance for Hospitals: The Organizational Culture Approach

#### **TABIBI Seyed Jamaledin, EBRAHIMI Parvin**

#### Introduction

The significance of organizational culture has been recognized as a source of organizational inertia and there has been some interest in its influence on the Information Technology acceptance and use, and healthcare field is not excluded in this rule. The purpose of this study was to develop the model of Hospital Information Technology acceptance for non-teaching hospitals of Iran University of Medical Sciences with organizational culture approach as an applied instrument to encourage the competent authorities to promote organizational culture and successful application of Hospital Information System (HIS).

#### Purpose/Methods

This research was applicable and was done by using descriptive and analytical methods. After reviewing the literature and comparing the related models and theories, the proposed conceptual model was developed including technology acceptance and organizational culture variables according to Michigan Organizational Assessment Questionnaire (MOAQ), Harrison, Hofstede models, and Comparative Values Framework (CVF), and the model confirmed by expert panel. Then a questionnaire was drawn up based on the conceptual model variables and components. The validity of the questionnaire was tested and confirmed by using expert panel and Content Validity Ratio technique and its reliability reviewed and attested by calculating Cronbach Alpha. Research data was collected by distributing questionnaires among 400 HIS users in the studied hospitals which were selected by using stratified random sampling method with convenient allocation. The collected data at first analyzed by descriptive statistics and applying SPSS software. Then to test the conceptual model, study its fitness with gathered data and determine the direct and indirect

relations between model variables, Structural Equation Modeling (SEM) method was used by applying LISREL Software.

#### Results

The collected data analyses suggested partially the positive ideas of users over variables of Hospital Information System (HIS) acceptance and also tow variables of "supervision" and "workgroup functioning" according to Michigan Organizational Assessment Questionnaire. Furthermore, the studied hospitals showed more tendency toward Result-oriented and open system according to Hofstede's organizational culture model. Besides, the study's findings demonstrated that the dominant culture of the studied hospitals were Role culture according to Harrison's organizational culture model, while Hierarchical culture was the dominant one based on the Comparative Values Framework. Reviewing the result of Normed Chi Square index (2.60) showed the final model had fitness with the gathered data. The figures of the indices were included: GFI= 0.95, CFI= 0.97, AGFI= 0.88, RMSEA= 0.064. According to the research model the influence of Developmental culture on Perceived Usefulness, moreover the relations of four types of organizational culture according to Comparative Values Framework (Group, Developmental, Rational, Hierarchical culture) with Mandatoriness, and the relations of Hierarchical and Developmental culture with system use were attested. On the other hand, the relations between "Supervision" based on Michigan Organizational Assessment Questionnaire and four variables of Hospital Information System acceptance were confirmed. Furthermore in the model the influence of Process/ Result oriented culture according to Hofstede model was attested but the relations between Open/ Closed system with Subjective Norms and user Satisfaction of the system were not significant statistically. Also based on the model the relations between non of cultural types according to Harrison model with system acceptance variables were significant statistically.

#### Conclusions

Considering the fitness of goodness of fit indices calculated for the research model and according to the HIS users' point of views, it can be concluded that the components and structural relations in the present study are applicable for and in congruent with non-teaching hospitals of Iran university of medical sciences and using the model shall contribute to promote organizational culture and the acceptance of Hospital Information System by its users in the hospitals.

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The negative consequences faced by users of Private Welfare Support Accommodation

#### FUKUBA Isao, FUKUTANI Riho, SEKIGUCHI Yukihiro, YAMADA Ayumi, SHINOBI Tetsuya

#### Introduction

In Japan, the number of P.W.S.A. and therefore the people who use it, had rapidly increased across the country. This report discusses the possible health problems faced by 668 persons who stay in it and consulted a doctor in our hospital.

#### Purpose/Methods

The purpose of this report is to clarify health problem by their life in P.W.S.A. and to discuss what kind of support they need. We analyzed the medical records of 118 with diabetes of 668 patients who visited our hospital during the period of January 2006 to November 2013. We obtained data on the level of blood glucose and HbA1c at the first hospital visit and also checked comorbidities.

#### Results

We found that the disease had already progressed with most of 118 diabetic patients when they visited our hospital. As for the test results, at the first visit the mean HbA1c was 8.9 ( $\pm$  2.9) % and casual blood sugar was 277 ( $\pm$  147) mg/dl. The percentages of patients with diabetic retinopathy and nephropathy (29.7%, 19.5%) are higher than the national average of Japan. According to the case study, the dietary content of P.W.S.A. users is not well-balanced.

#### Conclusions

It is found that it has been promoted the onset and progression of diabetes because of eating habits in P.W.S.A.. Furthermore, insufficient funding for life, loss of the hope to have a better life and poor health literacy leads to a delay in a hospital visit and therefore worsens the condition of disease. It is believed that continuation of treatment is interrupted for these reasons.

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#### Health promotion in Central Military Hospital – Military Teaching Hospital Prague

#### **GUTOVÁ Lenka, PETR Tomas**

#### Introduction

"Every healthcare contact is a health improvement opportunity". This concept is central to strategy of improving quality of care in Central Military Hospital. The hospital management is convinced, that hospital can help to create a step change in health and wellbeing, through promoting health and enabling wellbeing of patients, their families, visitors, and staff.

#### Purpose/Methods

The poster will summarize the key activities of health promotion in the hospital. It will describe interventions focused on patients and hospital staff. These contain smoking cessation, physical activity, special education, alcohol and drug screenings, healthy food promotion, psychological support and others.

#### Results

The hospital offers various health promoting activities for wide spectrum of patients and staff.

#### Conclusions

Health promoting activities in our hospital play important role in improving quality of care and satisfaction of our patients and staff.

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## University hospital and patient organization working together for the patient's good

#### **KAPYAHO** Kirsti

#### Introduction

During the visits in the busy tertiary care setting, the patients and family members often lack the opportunity to discuss on the topics not directly related to their medical treatment, such as advice in the every day life, and peer support. To better meet these needs, The Hospital District of Helsinki and Uusimaa (HUCH) The Espoo Association of social and health care Organizations collaborated to set up a patient support center (PSC) for the patients treated in the hospital.

#### Purpose/Methods

The center is an open space, situated in the main lobby of HUCH to ensure the easy accessibility. The personnel consists of 2 registered nurses, one representing HUCH the other The Espoo Association of social and health care Organizations. Two to three trained volunteers from the patient organizations are available. The center has information material and internet access. The patient ombudsman was available 1-2 hours a day, as a 3-month pilot. The center has now been operating for one year.

#### Results

During the first year of operation the center had 1149 visitors, of whom 900 were patients,111 were relatives, and 138 were hospital personnel. Additionally the nurses answered phone calls and mails. The center offers 2 computers for customer use. the workers were able to take their time and delve into the patient's problem. The help was offered in practical issues and the patients were informed on peer support groups and different sources of health and social information.



#### Conclusions

The high number of contacts suggests that this kind of service is useful and needed. The keys to success are easy accessibility and a good collaboration between the volunteers, the hospital, and the Patient Organizations. Of note, also the feed-back from the medical personnel has been mainly positive. To evaluate the health and QofL impact of the service, further studies are under way.

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### Health promotion policy and action plan in Oulu University Hospital

#### KUJALA Veikko, JÄRVI Leea, HARJU Terttu, KALLINEN Mauri, KARVONEN Juha, LINDEMAN Hannele, PUIRAVA Liisa, SAARNIO Juha

#### Introduction

The Oulu University Hospital has written management policy that includes health promotion. Health promotion encourages patients to take responsibility for their own health and if necessary, to change their lifestyles. Oulu University Hospital has established a working group that prepared an action plan for health promotion. The plan is based on the WHO and HPH standards of health promotion and it takes into account the Hospital Strategy and the general plan to organize health care in the Northern Ostrobothnia Hospital District. The general regional plan describes the collaboration with other health service levels and other institutions and sectors on an ongoing basis.

#### Purpose/Methods

The health promotion plan describes the practices of patient assessment and how to map out the determinants of patients' health. The mapping data include smoking, drugs, exercise, pregnancy and nutrition. These data are going to be entered into electronic ESKO patient records. This data collection is going to be a key part of the development of a Finnish national patient record archive in future. Health promotion is going to be concrete in the operations of all hospital units. Activities will be designed taking into account the specific characteristics of every unit. When making health promotion activity plans, staff members interact with patients and take their opinions into account. Hospital's top management appoints a multi-vocational group that will evaluate health promotion actions in the hospital units and give regular review of the actions. The multi-vocational group has a clear mission, target and specific working period. Hospital's health promotion activity will be evaluated regularly every year. Each hospital unit evaluates its own performance and reports to units' managers. A multi-vocational evaluation group collects all the data of the hospital's health promotion activities every year.

Hospital's education group for health promotion ensures that the hospital's personnel are proficient in health promotion practices.

#### Results

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#### Conclusions

Recommendations of the working group: To develop an electronic patient record system so that it supports the collection of patients' health promotion data. In near future health promotion is a part of hospital management. Hospital management sets up a multi-vocational health promotion evaluation group. A health promotion education group coordinates the continuing education of staff's health promotion skills.

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Proposal of an information system as a tool for inter- community of practice for the testing and the management of organizational as a model of clinical governance

#### CAMPAGNA Marcello, SOTGIU Alessandra, PORTOGHESE Igor, MURGIA Alessandra, PISANO Federica, MARONGIU Fabio, PRASCIOLU Silvia, CONTU Paolo

#### Introduction

The hospital care is characterized by both wasting and absorbing more resources than necessary. Proper management of organizational assistance in hospitals allow a significant reduction of wastefulness and the possibility to shift resources towards local services. The evaluation of the quality of healthcare is one of the main tools of clinical governance need for continuous monitoring of the level of organizational support, dissemination and application of best practices in hospital setting.

#### Purpose/Methods

The aim of this study was to develop capacity building in the healthcare management, evaluation and promotion of the appropriateness of hospital admissions across Regional Health Service. The project was organized in different phases focused on the development of organizational models and skills for the stakeholders. Through the system of the Communities of practices, participants will be able to compare their experiences and their results, and therefore develop new methods and new models promoting the culture of the network.

#### Results

Currently it has completed the first three phases of the project: the establishment of Communities of practice, with the identification of the stakeholders involved; The identification of informatics and others tools; The study of methods for the appropriateness evaluation and comparison of new models with the existing ones; The testing of the evaluation models shared by the Community of practice and the sharing of results. In the last phase it will start a training activity with other stakeholders.

#### **Conclusions**

In the partial results, it was highlighted a first change at the level of organizational appropriateness, with the abandonment of some practices previously used in favor of greater attention to the different types of levels of care provided, but also in the quality of the compilation of documents.

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# The Satisfactory Investigation of Health Promoting Services at Community Health Promotion Hospital

#### CHEN Kuan-Hung, LAI Ya-Yan, LIU Chih-Hui, CHANG Yucheng, DUNG Shu-Ping, LIN Pei-Yi, CHANG Yu-Chen, SHIH Yun-Wen

#### Introduction

In recent years, the health promotion is not only the most important issues in the world but also related medical utilization. Based on help people, We almost hold the health promotion activities like DM, CKD' patients health education, also pushed preventive medicine hard. Therefore, our purpose that want confirm the patients' satisfaction with health promotion hospital.

#### Purpose/Methods

Purpose: To understand the patients' satisfaction with health promotion hospital. Methods: To analyze the satisfaction of patients that the hospital provide healthcare services by using questionnaire to collect data. Collection time: the patient of making an appointment from February 29, 2012 to January 31, 2012, we were recovery questionnaire a total of 60, effectively taken into account in 60 questionnaires to 100%.

#### Results

We used chi-square statistic analyzed the questionnaire "The health promoting hospital' medical services were satisfy my needs." crossed the patients that education lower than junior high(36.7%,p<0.001) were agreeable and meant significance. The questionnaire "Health promoting hospital' staff are friendly and eager to help patients." crossed the patients that married(73.3%,p<0.01), lived in Chia-yi city(40.0%,p<0.001),

education lower than junior high(36.7%,p<0.05),and the age was over 51 years old(46.3%,p<0.05) were agreeable and meant significances.

#### Conclusions

We found if patients were education lower than junior high, they'd agree the health promoting hospital provided services and were made patients satisfied. If patients married, lived in Chia-yi city, education lower than junior high, age over 51 years old, they'd agree the health promoting hospital' staff are friendly and eager to help patients. This shows, we obtained patients affirmation, so we should keep providing friendly and health promoting services and pushing community people's health promotion is community hospital's duty.

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#### Impact on Cooperation Culture between Health Promoting Hospital programs and Organization

#### HSU Yu-Ping, CHEN Shao-Fang, KU Yan-Chiou, HUANG Huang-Chi

#### Introduction

Since Kaohsiung Veterans General Hospital initiated the health promoting hospital program in 2012, the concept, value, and standard of healthy lifestyle were incorporated into the hospital culture and daily life. Through systematic execution of the plan, hospital staffs were driven to participate and establish a culture of cooperation, create a healthier environment. Faculty staffs, patients, family members, and community residents could all participate in this activity to achieve the goal of better health.

#### Purpose/Methods

The strategies can be divided into two methods. (1)Top-down policy support, in which a health promoting hospital committee would integrate the resources of 16 interdepartmental units. The committee holds the meeting twice a year, and evaluates the Self-assessment Forms for Implementing Health Promotion in Hospitals (Modified by Taiwan HPH Network). (2)Several bottomup issues such as weight loss program, energy saving and carbon reduction, aging friendly program, and smoking-free hospital would be implemented to promote health.

#### Results

A Health Promoting Hospital Committee was formally established in 2013, and set the development of health promotion as a medium-term goal of the hospital. Over two year's course of promotion, the 40 items were successfully improved to 100% through 4 conferences to review Self-assessment Forms for Implementing Health Promotion in Hospitals. According to questionnaire survey, it was shown that health promotion



awareness of hospital personnel had increased to 92%. The overall satisfaction of patients to hospital was 97.37%.

#### Conclusions

The hospital facilitated the health promoting hospital program in order to pass the concept of health to everyone, and encourage staffs, patients, family and communities to participate in health activities. The health promoting hospital program showed a positive influences to the hospital. With the support of policies, and systematic execution of the plan, hospital staffs were driven to participate and establish a culture of cooperation, create a healthier environment and improve the overall satisfaction of hospital in patients.

#### **Comments**

The further development of the Hospital should be continued to join in Hospitals networks and promote the collaboration among hospitals. Try to keep medical practice up to date. Learn and share the experience to upgrade health care quality of our hospital and ensure the health of the public.

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### Performance appraisal of health promoting in Taiwan

#### HUANG Huiting, CHOU Ying-Hsing, LIU Yi-Lii, HUANG Shujen

#### Introduction

Taiwan had become an aging society and health promotion was an emerging issue to be addressed. Taiwan established a regional HPH network in 2007, and nearly 70 % of medical centers and regional hospitals enrolled in the network. Health promotion was very booming in the past few years due to government policy support. However, we are wondering whether we have been doing a good job and fulfill the vision of health promoting or not.

#### Purpose/Methods

We use Chinese version of standards for health promotion in hospitals to evaluate the performance of HPH in Taiwan every 4 years. Normally at least 3 surveyors will make a quantitative assessment for each hospital before enrolment. 34 hospitals were reviewed for qualification in 2012 before their certification expired. We make a quick study to see the performance of hospitals in implementing health promotion in the past 4 years. And what does it leave to be desired in Taiwan HPH network?

#### Results

It revealed there is significant improvement in implementation of health promotion on Standard 1-4. Particularly each hospital has raised the awareness of the importance of promoting a healthy workplace. Health assessment has become an essential part of medical records in general. On the other hand, continuity and

cooperation have always been the strength of hospital in Taiwan. We found the weakness of hospitals on health promotion is how to collect data to build up evidence medicine.

#### Conclusions

Our observation of health promoting in Taiwan revealed hospitals had reoriented their services from disease treatment to health oriented care. In the past few years, hospitals just pinpoint their services on patients and put less focus on employees' health.Being a HPH, the hospital staff had acknowledged the policy of hospital is changing and it's favorable for both patients and employees. Leadership is the key to success and we can see most excellent HPH has gained the strong support from higher ranking officers.

#### Comments

1.The job for health promoting is promising and rewarding. The future prospective is positive. 2. Effectiveness of health promoting needs more time to approve but we can see the awareness of empowerment for health is continuing to rise among patients, staff and community. 3. It demands more support from government and hospital itself. We should pour more resources in this movement despite the financial woe in current payment system in Taiwan. 4. Only we stick to continuity and cooperation, we may reach "health for all".

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#### Advanced and diversified works on health care and health promotion at Dahu Township Public Health Center in Taiwan

#### **SHIH Hsu Chun**

#### Introduction

Taiwan. Dahu Township is a rural area with geographical inconvenience and almost become an aging society recently, the number of people aged 65 years and older accounting for more than 13.3 percent of the population. To coordinate with the topic "Health care health promotion" derived from World Health Organization , DTPHC integrated the community resources and formed a volunteer group to provide populations the local help for mental and physical requirements and the appropriate health care according

#### Purpose/Methods

Resources from public or private divisions, intra- or intercounties, and personal or organizations, were integrated by DTPHC and the strategies to enhance health care and health promotion were then stipulated. A volunteer group with partners familiar with aboriginal or foreign languages was organized to carry out the health education and conciliation. Speedy mobility of the group was also necessary to monitor and assess, assisted by chiefs periodically in different areas, the health trends. Efforts striving for money and environment construction.

#### Results

The rates of oral, colorectal, cervical, and breast cancer screening were 91.78%57.87%53.61%and 94.95%, respectively, from Oct 2012-Sep 2013 in The influenza vaccine inoculation rates the elders, medical and epidemic prevention workers, and preliminary school students were 41.41%91.73%and78.51%,respectively. The inoculation rate of Streptococcus pneumoniae vaccine (PCV 13)82.00%infants. More than 65 percent of the elders understood the DTPHC's strategy for health promotion. More than 350 senior citizens changed their daily diet intake toward much vegetables and fruits, less oil, salts, and sugar

#### **Conclusions**

Many efforts should be made to create Dahu Township as a "healthy, safe, friendly, and livable" community to facilitate the active and successful aging for populations. Strategy stipulation, resource integration, cross-unit communication, and executive teams for specific responsibility might be the crucial considerations in the future works for health care and health promotion.

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## Promotion of Inpatient Holistic Medical Care Focuses on the Need of Patients

### YOU Xiu-Wen, LI CHIA-Lin, CHEN Chia-Ling, KUEI Ya-, HUANG Hsiu-Li, CHEN Li-Lin

#### Introduction

Medical specialization has brought advancement to medical service; however, as the complication of professional service and treatment increases, inpatients are expected to consult different departments and medical teams because of their state of illness. Based on the model of medical consultation so far, each department is unable to reach an agreement. Through the meeting with the medical team and the family of the inpatient, we promote holistic medical care, in order to integrate all the treatment direction.

#### Purpose/Methods

The purpose of the study is to provide integrated holistic health care for inpatients. When any member of the medical team finds the problem of an inpatient, they can inform case management division, manager will visit the patient within 24 hours, and starting team meeting which includes all members of the medical team, family, and caregivers to provide integrated holistic medical care.

#### Results

Promotion of the plan starts at June 2012. Information analysis is taken every six months, from June 2012 to June 2013. Case recipients increase by 150% (from 118 to 177 person-times). Yearly analysis has shown the 3-days re-emergency rate for patients enroll in this program is 0.39%, comparing to 2.95% of all patients in the hospital; the rate has decreased by 86.7%. Patients and their families score 94 points of satisfaction.

#### **Conclusions**

Regarding holistic medical care, the most frequent encountered difficulties are that doctors are unwilling to enroll in this program, and the cooperation between the medical team and the family members. To successfully promote the program, it needs not only the support from senior manager, but also the medical team to reach an agreement. We are looking forward to sharing the experience, to promote health care focusing on the need of patients.

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## Session P1.17: Creating health promoting hospital and healthcare settings

Rendezvous with life: humour care for geriatric patients

#### **CULEN Monica**

#### Introduction

RED NOSES International recognizes the need to provide the highest standards of healthcare and wellbeing at all ages, as envisioned by the Millennium Development Goals. From the panoply of RNI programmes for adult patients, this presentation will have a particular focus on the elderly. These patients have been one of our main target groups, together with children. Since the start of our programmes in hospitals' geriatric wards, major improvements have been registered in the quality of care offered.

#### Purpose/Methods

Our senior programmes aim at contributing to the development of compassionate, respectful and person-centred care for elderly patients. During the interaction, humour is used to convey respect for human dignity and for the personhood of the other. Clowndoctor work in this highly sensitive environment requires special artistic techniques and culturally and age appropriate humour and approaches (e.g. musical performances). In these programmes, the communication aspect is an intrinsic part of the interaction between the clowndoctors and the elderly.



#### Results

A systematic improvement in the general healthcare provided to older patients is clear in all the countries where RED NOSES works in geriatric wards. Spontaneous remarks about everyday events and shared moments of warmth and lightness can increase patients' response and can immensely contribute to their overall wellbeing. Additionally it can increase patient's cognitive response and willingness to accept treatment (especially for patients with dementia). Humour put to service of elderly patients in hospital wards also decreases feelings of isolation.

#### Conclusions

Humour is a valuable tool to foster patients' self-esteem and confidence. Through gentle words and interaction with the patient it is possible to negate stigmas such as those of dependence and incontinence. Collaboration with medical staff is of utmost importance to use humour as an instrument to preserve dignity even in undignified situations. For older patients, especially elderly people, humour at their bedside conveys the message that they are acknowledged as people and not mere routine of the hospital environment.

#### Comments

Please note that this work does not correspond to a scientific study, but to the daily work of our organization. The goal is to shed a light on the benefits of humour in healtcare. In fact, in countries such as Austria, the existence of clowndoctors programmes is also used to measure the quality of patient-oriented healthcare provided by these medical facilities.

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## Is it possible to eat healthy at hospitals' canteens? Look for the AMED certification

### CABEZAS PEÑA Carmen, MIRANDA Gemma

#### Introduction

Amed promotes health through the food offer improvement and certification of Mediterranean diet promoting establishments. Implemented since 2007, it is framed in the Health Promotion Integral Plan through Physical Activity and Healthy Diet (PAAS) of the Catalan Public Health Agency and is integrated into the Catalan Health Plan 2011-15. It is addressed to restaurants, chains of food and labour dinners, also in Universities and Hospitals, especially in labour surroundings. Amed guarantees an offer of Mediterranean menus and the dissemination of active leisure information.

#### Purpose/Methods

To describe the total growth and distribution of certified establishments and evaluate the improvements in the fulfilment of the Amed criteria during 2012-13, especially in the Hospital setting. Food offer is collected with a questionnaire through Amed's website. Data is confirmed by telephone or by a personal visit. A descriptive analysis has been applied to obtain the improvement percentage of the food offer within the 125 applicants (olive oil, vegetables and pulses, whole grain products, fresh fruit, low fat dairy products), following the Amed criteria.

#### Results

289 establishments certified from 2007-2013, in 84 municipalities and up to 44,000 commensals/day. 44 Hospitals, with 11,100 commensals/day (60% of total public hospitals). Improvements: 89.6% increase in the use of high-oleic-acid sunflower oil for frying, 10.4% of olive oil for cooking, 33.7% of whole grain products, 16.9% of low fat dairies, 10.4% of vegetables and pulses, 10% of fresh fruit and 5% of lean meat and fish. All establishments offered already oil olive as salad dressing.

#### Conclusions

A majority of the restaurants of the public hospitals of Catalonia have the AMED certification and thus offer a healthy diet based in the mediteranean diet. The Amed certification guaranteed food improvements within the certified establishments, mainly concerning the change of common vegetal oil for high-oleic-acid sunflower oil for cooking and/or frying. It also increased the use of whole grain products, mainly bread, and fresh fruit and low fat dairy products for dessert.

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## How the presence of Artworks influences mood of Users: a Case Study.

#### BONOMI Ornella, DEVECCHI Paola, MAZZA Roberto, POZZATI Ivan, SHAFIEYOUN Zhabiz

#### Introduction

A special Exposition of Artworks was organized in the main Reception Hall of Oncological Center Istituto dei Tumori (Milan - Italy), introducing paintings of a Japanese Painter, who was also a patient of the Hospital. He drafted the artworks during his admission and he completed them at home, when recovered. The paintings tell the story of the successful fight against cancer done by the Artist. The impact on mood of users was tested by a proper Survey, herein illustrated.

#### Purpose/Methods

200 filled and valid questionnaires were collected. The questionnaires of the Survey, already used in similar situations in

healthcare facilities, were arranged in two parts, one to capture directly the impressions of people coming from the presence of the exposition, the other to know the "affective response" regarding the ambient. Both parts of the questionnaire were composed with very simple questions. A notebook with free comments of the visitors completed the collection of the opinions for the exposition.

#### Results

The first part included 5 questions regarding the following aspects: A) Noticing works, B) Liking works, C) Being interested in works, D) Influence on mood, E) Influence on anxiety. Four choices were possible: Strong Negative, Negative, Positive, Strong Positive. The analysis of answers was done by age, gender, level of school, scope of presence. The second part analyzed the environment, by the possibility to evaluate 24 "affective" adjectives, suitable to describe the feelings induced by the ambient, in a graduation scale of 6 values.

#### **Conclusions**

Around 50% of all interviewees declared a positive influence on mood. Differences between the characteristics of interviewees are noticed and commented, too. The methodology used and the results obtained from the present Case-Study demonstrated measurable benefits coming from Art on health. This study is included in a wider research by the authors, investigating the emotional feedback of the environment in healthcare facilities, especially concerning reception, waiting rooms and corridors, considered the areas where healthcare users usually feel more discomfort.

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## Art to promote patient comfort but also a cue to understand their feelings

### DEVECCHI Paola, POZZATI Ivan, MIGLIO Graziella, MAZZA Roberto

#### Introduction

The new Breast Radiology Unit was inaugurated in the National Cancer Institute of Milan in 2011. The renovation has effected the space distribution, the systems, the change of furnishings. This project met the collaboration of the University Politecnico of Milan. A group of students decided the color plan. The rooms of the Unit were enriched with more than 150 artworks which were offered by artists from different countries. Breast Radiology Unit is now a permanent exhibition of contemporary art.

#### Purpose/Methods

The time spent before the examination is full of anxiety, fear, boredom. The greatest number of artworks are placed in the waiting room whit the purpose of entertaining patients during the stay. At the entrance of the Unit, in the waiting room, a

WHITE BOOK is placed. The patients can write on it their comments about the artworks. The aim is to collect the patient's impressions about the space renovation to understand the effect of colour and art on their feelings.

#### Results

The best result is about the influence of art on patient mood. Many of them refered that the view of the artworks is an opportunity of distraction and the time in the waiting room goes faster. This book is an opportunity for patients to communicate each other their experiences, to reflect about the meaning of life, to thank doctors and operators. The patients write everything: we read also about possible discomforts, claims about relationship and organization.

#### Conclusions

A WHITE BOOK is a useful tool to understand patient's needs. On a white page they are free to speak without filters and constraints. In this way we can understand with more precision their problems and how we can resolve them. This is like a litmus test: art helps us to receive the patient's mood and perception about the hospital's environment, organisation and level of humanization.

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#### Reduce Noise Decibel Level in the Hemodialysis Ward of a Regional Teaching Hospital

#### CHEN Hui-Ying, KUO Yu-Shan, CHANG Li-Huei

#### Introduction

It offered comfortable and quiet environment for medical treatment was the direction of the continuous effort of medical institutions. An investigation into hospitalization care services last year showed the level of satisfaction with the whole hospital tranquility to be the lowest was the hemodialysis ward.

#### Purpose/Methods

The project team developed this investigation for the purpose of noise reduction. In this study used observation of a search method, set up seven check points from 2013 April 1 to November 30. In addition, we used of the revised hospital ward management practices, standardized units internal staff communication patterns and revised hemodialysis work practices and so on, to track the average number of changes in the environment decibel volume during hospital hemodialysis dialysis.

#### Results



The results indicated that the sources of these noises included TV volume, shouting and talking among staff, closing doors, and work carts. Strategies to reduce decibel levels within the unit training, setting up disciplinary patrol for staff, lowering the volume of the TV volume, to post quiet sign posted photos. This strategy led to the average decibel level decreasing from 77.3 to 60 dB. Through these noise control efforts, the satisfaction scores increased to 4.15 points from the 2.13 points.

#### **Conclusions**

We will be continuing monitor and adjust our policy to make a better outcome, and offer other units reference.

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## Indoor Air Quality Improvement Promoting Environment-Friendly Hospital

#### HSIAO Yu-Sung, TSAI Ya-Ling, HUANG Wen-Nan, HSU Chi-Te, HUANG Ching-Shun

#### Introduction

Indoor air quality (IAQ), as well as other physical and psychological aspects, is part of Indoor Environmental Quality. IAQ within the hospital was also considered relate to staffs and patients of health and comfort. This article would share an Academic Medical Centers experience that making improvement of IAQ, especially reducing the indoor carbon dioxide (CO2), to win the 2013 IAQ competition first place award from Environmental Protection Bureau of Kaohsiung City Government.

#### Purpose/Methods

CO2, as an IAQ indicator, at high concentration might cause drowsy and headaches. Institute for Occupational Safety and Health (IOSH) Taiwan considers that, CO2 exceed 1000 ppm, suggests inadequate ventilation. Thus, past CO2 records were reviewed, air filters were cleaned, and ventilation flow rate with outdoor fresh air were increased, to ensure that the CO2 quality in hospital environment. Plus, pre- and post- 24-hours continuous on–site CO2 measuring data were collected as individual results for IAQ control.

#### Results

From 2012 to 2013, total 449 locations in outpatient area, CO2 were measured 3 times. Average CO2 was 537 ppm. However, nearly 28% of CO2 measured exceeded 1000 ppm. On 2013 September 24, a 24-hours continuous on–site CO2 measured at clinic lobby. Average CO2 was 1037 ppm. Afterwards, ventilation flow rate was increased from 7100 to 10200 cubic meters per hour. Another 24-hours measuring was on November 26. Average CO2 was 821 ppm.

#### Conclusions

People spend more than 90% of time staying in offices and other indoor environment. Good indoor air quality safeguards the health and comfort. As the experience above, using air filters could trap and reduce dust, and some other air pollutants. Meanwhile, maintaining sufficient ventilation could effectively lower indoor CO2 concentrations. From adequately air quality controlling point of view, outdoor background CO2 concentrations, weather influence, continuous monitoring and dynamically controlling would be for future considerations.

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# A Study of the Causes of Hospitalized Patients' Falls for the Purpose of Creating a Safe and Friendly Environment

#### LO Chia-Lun, LIU Chia-En, HU Ya-Han, CHEN Mei-Tsu

#### Introduction

One of the indexes of nursing and caring quality is patients' falls. Patients' falls may cause them trauma, fracture, and further cause nursing personnel more caring loading. Also, there may be medical disputes and negative influences on hospitals' reputations due to the bad health environments where they fall. Thus, this study aims to find out which patients are high-risk patients in regard of falling based on possible causes and offer them health education to prevent them from falling.

#### Purpose/Methods

This study collected the data from 197 patients who had fallen during the 3 years. The supervised learning methods were adopted to build the prediction high risk falling models which were also compared accuracies with common fall scales. Also, the information gain method was applied to measure the importance of the attributes. If the information gain of an attribute was high, that attribute was of great importance. Based on this information, hospitals can offer potential high-risk patients related health education.

#### Results

The accuracies of the decision-tree prediction model were better than the common fall scales in our experiment results. As for the attributes related to falls, the rather important factors were bad result of Kaufman scale, low lower-limb muscle strength, having had a surgery, female, low blood pressure, and diarrhea. The hospital then offered related health education to high risk patients with these factors. The reactions of the patients were good. And none of these patients has fallen after the education.

#### Conclusions

Knowing what may cause falls helps to build a friendly health environment. With this information, nurses can make early prevention and offer related health education, and high-risk patients' awareness of self-care can be increased. The purpose of promoting health can be achieved. Hospitals can, based on this information, create safe and friendly hospital environments to improve patients' safety in caring.

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## Session P1.18: Using new technologies to promote health

Development of PHR Service to Enhance Health Promotion

#### PARK Dong Kyun, JUNG Eun Young, JUNG Byung Hee, KANG Hyung Wook

#### Introduction

Korea's National Health Insurance Service provides medical health checkup to the citizen including health screening for early risk detection as a social security. Also, many hospitals provide paid health medical examination for complicated checkups. Even though data for the results are stored digitally in servers, patients receive the results of the checkups and examination by paper documents. This study proposes the usage of PHR(Personal Health Record) as a valuable way to use the data and add value.

#### Purpose/Methods

PHR system was developed to enhance information usage and help health promotion. The system is available by mobile application for the Android OS, IOS and web portal. These tools help to prepare health checkup. Also, patients can view their result of the examinations they had in the hospital. Moreover, by applying algorithms, various contents such as exercise and nutrition suggestion, personalized consultation that can promote health condition are provided to patients based on EMR data generated from the health checkup.

#### Results

The system provides information online in real-time the after the checkup. Menu of the PHR system is designed by consultation from hospital's health promotion center's staffs to provide the best legibility and information. Patients can view their results and information by smartphones and computer. The system provides doctor's overall opinion and abnormal findings separately. Also, examination data are shown in detail with normal range so patients can better recognize and understand their health status.

#### Conclusions

Providing health checkup result online and by smartphone is an effective way to provide medical information to patients. Not

only patient's time and physical resources can be saved, but their convenience and satisfaction can be increased. In the future, development of personalized health checkup program is planned and case control study is required to evaluate effectiveness of the service. The service is expected to provide better information to patients as well as promoting patient satisfaction.

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## Created a multimedia-assisted medicine video system to aid patient education

#### CHEN Ping-Ju, CHENG Ching-Tai, HUANG Hui-Ting, CHIANG Ting-Ju, CHEN Hsien-Yu

#### Introduction

Traditional medication instructed by a pharmacist can improve drug therapeutic effect and safety. As time goes by, patients usually forget drug instruction, especially most of our patients are challenged by many difficult situations such as age, language gap or obliviousness. While new technology has been conducted in the medical system, the multimedia application for patient education is relatively unexplored in Taiwan. The purpose of this study is to investigate the effect of using multimedia-assisted medicine video system in patient education.

#### Purpose/Methods

We build an interactive multimedia application designed as a mobile device which stored one or more video programs about healthcare and medicine information. The display was exhibited by the QR-code printed on the medicine packages. After subjects using smartphone scan the QR-code and watching those videos, we ask them to fill a questionnaire.

#### Results

We obtained 200 questionnaires. Most subjects are females, living in Tainan , working for service industry, age between 31~40 and over 51 years old, and majority level of education is universities(59.5%). 94.5% participants could understand Mandarin or Taiwanese. And over 90% participants were satisfied with the multimedia-assisted medicine video system in patient education. The data proves the advanced mobile technology with medicine information may greatly enhance patients' knowledge of healthcare in the future.

#### Conclusions

Although many seniors are not familiar with the mobile technologies, their children can scan the QR-code for them to get the information of the drugs instantly. In this case, the child could have more interactions with their parents and could be the health guardian of the family. The system combines the advantages of medicine information, mobile technology, and



health promoting, to ensure the safety of the patient's medication and make a contribution to the patient's health.

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## Effectiveness of Applying Telematics Management Systems to Manage Psychosocial Hazards at Workplace

### CHIH-CHIEH Chang, YI-LIN Su, CHIH-CHENG Chien

#### Introduction

Violence in the workplace has become an increasing risk factor for health care workers. It occurs with the developing of serious health, safety, and legal problems at the same time. For hospitals, psychosocial hazards has negative impacts at workplace. Therefore, facing the threat caused by occupational violence in the hospital, systematic measurements must be developed to manage psychosocial hazards via the capability of information technology management, high quality of patients' care, the efficacy of hospital management.

#### Purpose/Methods

The research focuses on the use of automated short message service to deliver messages which contain medical data of patients' visits to staffs within the hospital especially the message which contains those patients who are likely to harass workers. Health Information System is applied to notify staffs automatically about locations of the suspect patient of causing occupational violence in order to decrease workers' mental stress of caring these patients by providing better care to the suspect patient and assistances needed.

#### Results

After implementation, staff turnover has been decreased and workplace-related psychological stress has been relieved as mentioned by the staffs. The management decisions made to provide a safety working environment have been appraised by employees.

#### Conclusions

Greater attention has been given to patient safety by health care providers and customer-oriented has been addressed in our work environment lately, attribute factors of work related stress have been changed as the result. For the purpose of improving the quality of health care, enhancing the cohesion of employees, and providing a violence-free working environment, then the policy should be made against workplace violence, computer program should be developed to notify staffs about violent patients' visits.

#### Comments

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## Websites of Medical Centers and Regional Hospitals in Taiwan: Are they patient-oriented?

#### LAI Chin-Ying, HSIAO I-Yu, KOO Malcolm

#### Introduction

The website of a hospital could be the first point of contact between a patient and the hospital. Previous studies had indicated that hospitals' e-health implementation on their websites lagged behind the needs of patients. Little information is available on the implementation of patient-oriented features in websites of hospitals in Taiwan. Therefore, the present study aimed to examine various patient-oriented features in websites of medical centers and regional hospitals in Taiwan.

#### Purpose/Methods

A list of medical centers and regional hospitals, defined by the Taiwan's Joint Commission of Hospital Accreditation, were obtained from the Ministry of Health and Welfare of Taiwan. All 18 medical centers and a random sample of 20 regional hospitals, matched by the location of the medical centers, were examined for a number of patient-oriented features on their official websites. The differences in the patient-oriented features between medical centers and regional hospitals were compared using Fisher's exact test.

#### Results

Of the medical centers' websites, all of them had provided separate webpage for each physician listed with their expertise. All of them allowed users to request or cancel an medical appointment and inquire the progress of queue waiting for consultation. Half of them provided access to physicians' clinic hours and had direct link to make appointments from a physician's webpage. Over 70% had links for downloading smartphone apps. Medical centers had better implementation of patient-oriented features than regional hospitals.

#### Conclusions

The present study indicated that patient-oriented features were well-embraced by medical centers and regional hospitals in Taiwan. Nevertheless, there were still considerable variations between hospitals. Hospitals might want to critically examine whether their online presence could fulfill the expectations of web users of today. Future studies should evaluate the available patient-oriented features from the point of usability from actual users.

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Application of smart phone apps to evaluate exercise effectiveness of hiking trails in Hsin-Chu County, Taiwan

### YANG Ting-Yin, CHEN Meng-Kan, LIAO Shou-Fu, TSAI Jui-Yuan, YEH Nai-Lun

#### Introduction

According to the statistical results in Taiwan, more than 40% adults in Taiwan lack exercise. In order to improve this problem, the Health Promotion Administration in Taiwan advocates "Ten thousand steps a day, keep your health in a good way". For evaluating the effectiveness and safety of several hiking trails in Hsin-Chu county, we use two smart phone apps, "endomondo" and "sports tracker" combined with Polar Wearlink® and Transmitter With Bluetooth® to monitor heart rate and estimate the caloric consumption.

#### Purpose/Methods

Duration and heart rate during hiking were recorded by the apps. Metabolic equivalent (MET) values of hiking trails are approximately calculated by the maximum heart rate, and then we could estimate the caloric consumption and intensity of exercise. Five rural hiking trails are studied in a township of Hsin-Chu County in Taiwan. Furthermore, accessibility, safety, scenic motivation, efficacy, and suitability were surveyed with Likert scale by the researcher.

#### Results

The average duration of hiking in the five trails was 56.9 minutes, and the mean MET was 4.6. Hiking in these trails every minute could consume 13.2 Kcal, and all the intensities in the five trails were moderate. The healthiest and safest trail is Daqidong Trail. Hiking in this trail once a week, people could meet the basic requirement of exercise. The 2nd Chi-Long Trail was the most aerobic trail. However, due to consideration of safety, we don't recommend it.

#### **Conclusions**

It goes without saying that hiking is a simple and free form of exercise. The high acceptance and accessibility of hiking attrack many people. By using the apps downloded in smartphone, quantitative information can be provided to the users. These quntitative informention not only provide the effecacy of hiking but also reinforce the hikers' motivation.

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# The Influence of the Intention on Using Telehealthcare System: A Study at a Regional Teaching Hospital in South Taiwan

#### **TUNG Lung Sheng**

#### Introduction

A telehealthcare system had been developed and used at a regional teaching hospital in Southern Taiwan. People join and become the members can use services provided as followings: reports and query of their medical treatment, diagnosis, admission note, clinical laboratory, health management and reminder, transmission of physiological measurement value etc. The theory of Unified Theory of Acceptance and Use of Technology (UTAUT) explores four key aspects (Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions) to determine the factors which influence the intention and behavior of how people accept technology. The UTAUT theory is used to find out the intention and influential factors of the people on using telehealthcare system, and willingness to pay. We expect this study can provide some insights for the medical institutions in the future to manage the telehealthcare system.

#### Purpose/Methods

Execution period was from April to May, 2012. 212 valid semistructured questionnaires were collected and analyzed, including 152 joined members, and 60 non-members who never used the system. The SPSS 12.0 statistical software was used for the statistical analysis.

#### Results

Only 25% people agree or very-agree to pay for this service. 86.8% people can accept the payment for NT\$ 500-1,000 per year with charge. 39% people think the fees should be payable from The Bureau of National Health Insurance, 43% people think strategic alliance with insurance companies to pay the fee. The result of multiple liner regression shows that Performance Expectancy and Facilitating Conditions are significant factors which influence using intentions.

#### Conclusions

From results of this study, we recommend to provide more incentives to urge people becoming members and using this system, even if it is difficult to distinguish the causal relationship between membership and the using intention .

#### Comments

We suggest that the payment can be covered by The Bureau of National Health Insurance or simply leverage private insurance companies. Another possibility is to include the telehealthcare payment in the compulsory long term care insurance which is enforced by the government in the future.

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## Telecare with pharmacy integration to manage patients' drug use and prevent polypharmacy

#### TSAI Wan Shin, YANG Pei-Jin, YEN Hung-Yi

#### Introduction

In recent years, chronic diseases have accounted for nearly 80% of medical expenditure in Taiwan. Currently, Zhu-Shan-Show-Chuan Hospital combines telecare with pharmacy integration to manage patients' drug use and prevent polypharmacy.

#### Purpose/Methods

Health management planners surveyed cases by analyzing patients' pattern of hospital visits, types of medication and number of pills prescribed. If the fraction is more than or including 4, telecare center will start cross-team support with pharmacy integration. The difference in medical expenses in the year immediately before joining telecare will be compared with expenses after two years in telecare.

#### Results

663 questionnaires were distributed (recovery of 86%). Hypertension was the main chronic disease. 6% of cases require cross-team support with pharmacy integration. The major problems identified were multidisciplinary visit to the Out Patient Department and polypharmacy. We found that although medical expenditure increased in the first year in such cases, it decreased in the second year as a result of participation in telecare.

#### Conclusions

The medical expenditure of the cases exceeded one hundred million NT dollars in three years in the following proportions:- ② 31% before joining telecare, ② 36% in the first year after joining telecare; and ③ 33% in the second year. Although medical expenses increased by 2% from 31% to 33% after two years in telecare, expenditure could be controlled more effectively due to cross-team care which placed an emphasis on the concept of "early detection enables early treatment and care"

#### Comments

Promote telecare in remote areas. This type of care can effectively provide appropriate information which would decrease waste of medical resources. Additionally, it can avoid problems of polypharmacy and multidisciplinary visits to the Out Patient Department.

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## Promotion of Health With Emergency Telehealth Care System

#### HSIEH Hui-Lung, YEN Hung-Yi, CHUANG Bi-Kum, HUANG Hsiu-Yi, HU Chun-Han

#### Introduction

Chu Shang Show Chwan (CSSC) is a community hospital located in Nan-tou County, Taiwan. With an ever-increasing aging populace, our goal is to deliver to our community holistic self-health management systems that will improve the overall quality of life for those in need. The Emergency Telehealth Care System (ETCS) is a home-based care system that provides dedicated support and 24 hour monitoring to patients at risk of serious injury due to physical or mental illness directed towards the ageing population.

#### Purpose/Methods

Candidates for the ETCS are put through a rigorous assessment that involves:Medical History Reviews, Physical examinations, Questionnaires, Home Visiting. Candidates living alone, suffering from multiple issues or at risk of physical injury through falls are given priority. Several methods for communication, mental support, health education and vital sign monitoring are carried out using the Telehealth Care and Emergency Call system. Current tools include: Tustall 400 Home Unit, wireless pendants, telephones, and Fall Detectors that monitor around the clock.

#### Results

Emergency Call system 444 cases in 309 home installations. Mean age:78 y/o, man:woman (1:1.17), living indeoendently 70%, illiteracy 40%, hypertension. 60% Total calls:2253 ( 2009/10 to 2013/10).Reasons for calls:OPD registration 984(44 %), consultation 542(24%), emergency calls 226 (10%). After emergency calls all send to ER, the average ER arrival time is 47 minutes(7-112 minutes). Based on TTAS5 , level 1 (3%) , level 2 (18%) ,level 3 (73%) ,the main reasons for calls are: dizziness (20%) falls (18%)and coma (13%).

#### Conclusions

Elderly living in rural areas usually lack of medical knowledge, self-health awareness and do not have enough access to caregivers. This system provides direct access to health providers (pharmacist, nutritionist, nurses, social workers, and doctors). Through assistive medical technologies immediate help and rescue is at hand with the hospital offering accessibility, flexibility and continuance of care. The telehealth program promotes healthy, safe living conditions and increases understanding, access to hospital and health services in rural areas.

#### Comments

As the elderly population is increasing (16.69%) in this area(11.45% in Taiwan ), aged care is vital however complicated. Telehealth and the emergency call system allows the health care provider to have flexibility and access which in turn decreases stress related to caregiving increasing the efficiency and quality of care which is often life saving. This program helps the elderly live more independently providing improved quality of life and decreases the strain on on-site services.

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## An In-hospital Patient Tracking and Guiding System Based on Smartphone

#### CHANG Shih-Chieh, PAN Telung, SU Yu-Fang

#### Introduction

Safety and high quality patient care are two parameters that define the mission of most hospitals today. These two parameters can sometimes be compromised with ambulatory patients such as wanderers and elopers. This study proposed a real time in-hospital location system based on support vector machine and receive signal strength indication for the location based service.

#### Purpose/Methods

System of this study reduces the cost of extra infrastructure ex. Wi-Fi network or sensors and helps hospital staffs keep track of patients and alert of events or incidents that require immediate attention.

#### Results

The experiment result shows that the support vitrual machine detectability of our two testing areas can be achieve 100% in 1 meter precision. However, the results of path detectability cannot achieve 100%.

#### Conclusions

This study proposed a real time in-hospital location system based on support virtural machine and received signal. The simulation system of this study reduces the cost of extra infrastructure and helps hospital staff keep track of patients and guests.

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#### Health Promotion for Residents in Kaohsiung City by Means of Radio Broadcast

#### YANG Chen-Cheng, HUANG Jhong-Ping

#### Introduction

For public issues promotion, the traditional methods include speaking, advertisement, poster, and journals. However, media are more and more popular to be used for broadcasting public healthy knowledge and hygiene education. Radio broadcast is one of the main tools. It provides important topics for children as well as elders. Audiences can keep in touch with the newest healthy education programs if they can receive the radio wave anywhere.

#### Purpose/Methods

The aim of our study is to evaluate the health promotion effects for residents in Kaohsiung City by means of radio broadcast. From August 2012 to January 2013, we arranged 65 times of healthy education programs in 13 radiobroadcast stations. Meanwhile, computer assisted telephone investigation was performed by stratified random sampling methods. The analyses included listening times, correction rate of questions about our healthy education programs, and the call in questions and comments on the website.

#### Results

We collected 1170 samples of residents in Kaohsiung city. The top three listening times were between 9am to 12pm (38.5%), 12pm to 2pm (31.6%), and 2pm to 5 pm (26%). Furthermore, the correction rate of questions about the health education programs ranged from 69.88% to 80.15% during six months. Meanwhile, the 479 call in questions on live and 533 comments on the website were correlated to the topics of these programs, included metabolic syndrome, nutrition, pediatrics, geriatrics, and cancer prevention.

#### Conclusions

Radio broadcast is a useful tool for health promotion of residents in Kaohsiung city. "Quality care, healthy community" is not only the core idea but also the responsibility of our hospital for residents. Herein, by the healthy education programs, we can promote the newly healthy knowledge and interact with the audiences by dialects in real time. We will keep on devoting to health promotion by a variety of accesses in the future.

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## Improving health of remote residents by health cloud in Taiwan

#### YANG Pei-Jin, CHUANG Bi-Kum, HSIEH Hui-Lung, TSAI Wei-Chuan, SU Su-Pi, HUANG Hsiu-Yi, HU Chun-Han

#### Introduction

Chu Shang Show Chwan Hospital builds a Telehealth town on the basis of strategies of the Ottawa Charter. We set up and understand the health status of the community residents, concern the living activity of residents, and promote the health-building community by themselves. Hopefully, we want to provide physical, mental and social well-being services to residents.



#### Purpose/Methods

By launching of Telecare, we create the followings: Public healthy policy: by the Government policy build healthy policy for residents. Create supportive environment: set up Telecare service stations to provide physical measurement. Strengthen community action: focus the role model and incentives to increase the incidence of self-measurement and the cooperation in community. Develop personal skills: develop a friendly network and interface for people to recognize health condition independently. Reorient health services: react for abnormal signals, provide health education and call for integrated care.

#### Reculte

With a 24-hr Telecare service center, the team include Dr., nurse, care manager, pharmacist, rehabilitation, dietitian, and social worker. From 2008 till now, we care for 2825 residents and 18 communities. Increase the physical measurement: the measurement occurrence as following, 2010, 16199; 2011, 49794; 2012, 71019; 2013, 52008 Decrease the abnormal rate of physical data: 2010, 43%; 2011, 36%; 2012, 35%; 2013, 33%. Provide integrated care, 868 cases totally Decrease the incidence of stroke, 3‰ by year.

#### **Conclusions**

Telecare services can support the desires of the people living in and aging in hometown peacefully. We set up Telecare service systems around the County and provide consultation, medical education and immediate information to solve the residents' healthy problems. Because of the benefits and good rewards from the system, residents can take healthy lifestyle to make good control of chronic diseases. In addition to reduce medical costs, preventive medicine and happy life will be achieved eventually.

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#### A Low Cost EEG Signal Controller to Improve the Self-sufficiency for Longterm Bed Rest

#### PAN Telung, SHEN Chih-Chang, CHNG Jhih-Chng, SU Yu-Fang

#### Introduction

The growth of the population of aging people and chronic disease are the major reason for long-term bed rest. Prolonged bed rest has long been known to have deleterious physiological effects, such as muscle atrophy and other forms of deconditioning. Patients were not allowed to use their hands at all. Therefor, one of the costs of bed rest is the nurse who served, bathed, and clothed them.

#### Purpose/Methods

This study proposed a low cost EEG signal controller application based on our ICA (Independent components analysis) algorithm installed on a smartphone.

#### Results

This controller is very easy to use and useful for bed rest patients to improve their self-sufficiency by the clearly detection of brain signal, such as body movement assist notify, active inform, and phone call.

#### Conclusions

The practice of this signal controller can be an innovation for the convenience of bed rest patients and also reduce the loading of care giver.

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## Session P1.19: Promoting health by improving diet and weight management

## Commercial food thickeners may pose health risks

#### LIU Yi-Shuan

#### Introduction

Food thickeners are important for people facing medical issues with chewing or swallowing. Commercial food thickeners are widely used and their ingredients are including maltodextrin, cornstarch and xanthan gum.Maltodextrin has a high glycemic index and may lead to a blood sugar spike. Xanthan gum is a microbial exopolysaccharide. Some animal studies published that Xanthan gum has improved hypolipidemic and hypoglycemic effects. However, it could induce lymphocyte activation and exert macrophage-activating activity. Thus, they may pose health risks.

#### Purpose/Methods

This paper searched and compared the ingredients of current commercial food thickeners.It's a systematic review ,limited to the English language and in PubMed ,to investigate the adverse health on the ingredients of commercial food thickeners. Finally ,the possible effects of adverse health were presented .The purpose is to inform people commercial food thickeners may cause complications, attention to the ingredient statement and to select the appropriate food thickener ,so as to contribute to clinical assessment and management.

#### Results

Oral administration of maltodextrin may cause false elevation of blood glucose measured on certain point-of-care glucometers ,

especially for people with GI tract barrier breakdown, such as inflammation and ulcer. Xanthan gum has no significant effects on glucose tolerance,insulin tests, triglycerides, and HDL cholesterol, but there was a moderate reduction in serum cholesterol.SimplyThick(\*),a food thickener made from Xanthan gum, in infants of any age may pose risk of necrotizing enterocolitis (NEC).

#### **Conclusions**

Maltodextrin and xanthan gum.are food additives on the F.D.A.'s list of substances "generally recognized as safe". But on September 18 ,2012,F.D.A said Infants of any age may face an increased risk of developing a life-threatening condition if fed a thickening product called SimplyThick(\*).People should be aware of the potential health risk before deciding whether to use commercial food thickeners.Natural food thickeners may be a better choice.

#### Comments

Further study is required to confirm the effects of maltodextrin on glucometry and evaluate the likelihood of this problem based on the specific glucometer type used for the measurement. One possibility of xanthan gum causing NEC in infant is fragile digestive system and it leads to bacteria breaking down the xanthan gum into too many toxic byproducts. It is presumed that xanthan gum may pose the risk of intestinal membranes damage in the people who has fragile digestive system.

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## Exploring Physical Health and Activities with Gender Difference

### HUANG Hsin-Jou, WAN Hsueh-Yin, SHEN Shu-Hua, LU Huei Lan

#### Introduction

The eating habits have changed in recent years, and physical activity and exercise habits of people need to be strengthened. Obesity, increasing blood pressure, diabetes, heart disease, governments has begun to attach importance to the impact of these diseases on life. This study focuses on the impact of gender on health and activities.

#### Purpose/Methods

In this study, self-administered questionnaire, including "In general, do you think about your health?", "Will physically strenuous activities affect you now?" "Will the moderate activity affect your body now" and other topics to understand the impact of gender on activities.

#### Results

A total of 260 participants, 54 males, 206 females. 174 are 18 to 39 years old, 86 people aged over 40 . Women perceived poor

physical health than men ( $\chi 2$  = 14.56, P = .006 \*\*); women conscious now will affect their strenuous physical activity affects more than males ( $\chi 2$  = -0.17, P = .006 \*\*); however, whether male or female, "Now the body will affect your moderate activity" no significant difference.

#### Conclusions

The results showed that modern women may be because the majority of working women generally, the need to care for family meals after work, no extra time to exercise; some women thinks that is a sport that women perceived physical condition is poor, and cannot be strenuous exercise. Although it is not the cure for the movement against the disease, but it can strengthen the heart and lung function, enhance physical endurance, relieve stress and enrich the content of life.

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# The Correlation Analysis between Participation in health promotion activities and Health status to the people

#### WU Hsin Hsin, HSI Wen Yun

#### Introduction

Metabolic syndrome is one of the diseases of modern civilization, but also proved to be the main cause of many diseases. Compare with other countries, the people suffering from metabolic syndrome easier, but a lot of people is quite strange on the metabolic syndrome. The national research survey finds that the people metabolizes symptoms prevalence is the trend to year by year go up, the male over 19 years of age is 25.7% and female 20.4% in 2005-2008 years. By handling health promotion activities, let the people understand Metabolic syndrome and improve health of self.

#### Purpose/Methods

This study was to understand the correlation of people health status and their participation. Participating in health promotion activities were 205 people, after deleting invalid samples was 193 people. In this study, health indicators were blood pressure, blood glucose and waist circumference. The sample was divided into two groups, one group was involved in only once, another group involved in more than twice. Three indicators, if one exceeds the standard value were compiled for unhealthy. Data use chi-square test and regression analysis.

#### Results

There are 134(69.4%) people join health promotion activities once and 59(30.6%) people are twice above. The variables is people health status and their participation. There is a statistically significant difference in health status with comparing once and



twice participation (p<0.05). After adjusting gender, joining activities once people are healthier than joining activities once people. (OR=1.93).

#### **Conclusions**

These results may help medical providers and government officials to understand the correlation of people health status and their participation in Taiwan. Joining health promotion activities had been shown, in the present study, to be effective in improving health status. The results suggested that join health promotion program may awake people awareness. If the incidence and prevalence of metabolic syndrome can be lowered, the occurrence of illnesses associated with it can be reduced and in turn, the burden and the cost of the health care system can be lessened.

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#### Safety and healthy operation

#### OSSIANNILSSON Katarina

#### Introduction

Research has shown that patients' lifestyles correlate to postoperative complications. This causes great suffering for patients and increased costs for health care. Within the healthcare we are aware of this but this is not common knowledge. When we communicate this knowledge before surgery increase the motivation to make livinghabit changes but help and support is needed. This is a patientsafety issue and should be included as routine in all surgical operations

#### Purpose/Methods

Aim All patients scheduled for surgery on Skåne University Hospital, Sweden should be offered support to the living habits change when it is relevant. Method Designing a preoperative routine regarding lifestyles for patients before surgery Communicate knowledge about lifestyle to employees in the clinic. Develop a manual that can be used in patient communication. Provide patients with simple advice / counseling / informed advice on lifestyle habits individually and in groups.

#### Results

We will monitor the number of patients who change their habits before surgery when it comes to tobacco, alcohol, physical activity, obesity and malnutrition.

#### Conclusions

Safety and healthy operation benefit for the patient and cost benefit for the organisation

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## Effectiveness of nutritional seminar on dietary behaviors of local residents

#### LEE Hee Young, HA Jin Kyoung, CHOI Jung-Seok, LEE Hae Won, LEE Sang Hyung, YOON Kang Sup, YOON Jong Hyun

#### Introduction

Traditional Korean diet is high in carbohydrate and vegetables, and low in fat which has health benefits. Korean diet also contains high sodium, low protein and not many fresh vegetables. However, as the Korean society became economically advanced, the diet also changed dramatically with increased consumption of 'fast foods' and 'Western' diet that contain high calories, more sodium and less dietary fiber. This altered dietary trend has lead to body weight gains and increased health risk of cardiovascular disease, hypertension, diabetes mellitus and other chronic diseases among Koreans. Toward combating this unhealthy trend in the Korean diet, Boramae Medical Center initiated a program of educational seminars targeting patients, employees and local community residents to instruct how to eat and prepare healthy balanced meals. We also surveyed the participants to correlate their life style and dietary behavior with the effectiveness of the seminar on their change in dietary behavior.

#### Purpose/Methods

Boramae Medical Center Healthy Meal Seminar was held twice in November and December 2013, consisting of sessions with a lecture on the effects of nutrition on disease and healthy dietary strategies to prevent disease, a cooking demonstration on how to prepare healthy meals, and a tasting experience of the prepared healthy meal. After experiencing the healthy meal, there was a Q&A session. At the end of the seminar, participants completed a satisfactory survey with life style and dietary behavior questions.

#### Results

Participants of the seminar program displayed great interest and enthusiasm. More than 80% of participants were generally satisfied with the seminar. The result of study on life style and dietary behaviour is being followed as the survey analysis is completed and the effectiveness of the seminar on the change in dietary behavior will be surveyed by telephone follow-up interviews

#### Conclusions

In South Korea, disease related nutritional seminars like diabetic diet seminars are becoming more common. However, Boramae Medical Center Healthy Meal Seminar is a first attempt focusing on promoting how to prepare and eat healthy balanced meals to maintain general health in general hospital. With this experience and the result of the study, we hope to offer improved program to make healthier community.

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## The simple diet education mode intervention to improve

#### **CHERN Meei-Ling, KE Chao-Han**

#### Introduction

According to the health diet direction of WHO and most of advanced countries, populace have been encouraged to take enough fruit and vegetable for thier daily diet. There are only 20.7% people absorbs fully five fruits and vegetable per day in Taiwan. The diet habit of people lacking of fruits and vegetables have been reported that relating to cancer and cardiovascular disease. This research aim to use simple diet program to improve diet habits of elder people in community.

#### Purpose/Methods

The subjects of this research are elder pepole of community. The research program of simple diet education mode includes of (1) health record bankbook (2) interesting teach course (3) subscribe decides the incentive system (4) use picture to teach (5) link community volunteers and (6) nutritionist home care. Questionaires are used to collect the information before and after program to understand the effects. Research period were from 2012 Feburary to October.

#### Results

Overall, there were 578 person applied to join the simple diet program, there were 174 person complete whole programs. People meet the criteria of taking five fruit and vegetable after simple diet program increased from 56 to 157 people, Some feedback from participant mantioned that health record bankbook can as an add memory skill for elders to record their daily food, and a nutritionist gave elder the direction of diet helping participant to know food they ate more.

#### Conclusions

There were a half of participants who completed whole program reach the target of simple diet program. We believe that the diet habit of elders can be changed through this well planed model which can encourage elder to check their food. Combined community volunteers, home teaching, and dietitian home health education is a way better than the traditional teaching program to enhance elder's diet habits. It is also presenting the importance of empowering the elders in this program.

#### Comments

Diet is a basic human need, and how to eat healthy is a very important issue. A well planed diet program should be designed base on the needs of the subjects. In the further research, we would consider to use this program for elder to reduce their diet in low-fat, low salt, and low sugar to improve their health.

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#### The empowerment model of shortterm medical volunteer service: a nutritional improvement approach

#### OUYANG Chung-Mei, YANG Kuen-Cheh, TAN Boon Fatt, TAI Chin-Cheng, LO Yi-Ting, WU Chia-Fang

#### Introduction

There were many medical volunteers from hospital staffs in Taiwan recently. Our hospital began to attend medical volunteer service in Ladakh since 2012. Malnutrition is one of the most important underlying causes of child mortality in developing countries. The prevalence of underweight and stunting among children at some primary schools was quite high in Ladakh. These might be associated with repeated exposure to adverse economic conditions, poor sanitation, and the interactive effects of poor energy and nutrient intakes and infection.

#### Purpose/Methods

The Aim of this study was to provide a nutritional approaching model in a primary school in Ladakh for improving students' nutrition condition. Twelve volunteers participated training program prior field experience. The service was performed 14 days during the summer of 2013, which began with field investigation (food items, resources, process, storage, service and safety). We assessed the balance of food supply for students and provided strategies for improving nutritional status. Finally the results of the approach will be evaluated.

#### Results

All the food items, resources, process, storage, service and safety which provided to students at school were investigated and assessed. The strategies for improving food safety included environmental cleansing, the skills of food purchasing and storage, and avoiding food contamination etc. The strategies for improving underweight and stunting were increasing the frequency of milk supply, and providing multivitamins supply in winter. We trained the employees to perform the works/skills which could empower them to maintain this throughout the year.

#### Conclusions

The empowerment model of short-term medical volunteer service for improving food safety and nutritional status was successfully performed through field investigation and assessment by all the staffs of school and medical volunteer team. All the information from this project provided to school for further intervention and evaluation.

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## Experience sharing in health promotion via group activity - NTUH Lunch Party

#### PENG Hui-Yu, CHEN Hui-Chuen, KUO Yueh-Hsia, CHENG Chin-Pao

#### Introduction

Due to westernized eating pattern and physical inactivity, metabolic syndrome and chronic diseases is threatening the public's health in Taiwan. From the view of nutritional preventive medicine, we start to hold a 'lunch party' monthly for health promotion since 1993. This is a multidisciplinary health team work, including health education from physicians and dietitian and healthy lunch served. We expect that participants can apply the nutritional and health knowledge and skills of food preparation to their daily life in future.

#### Purpose/Methods

The activity was held once a month. During the activity, physician gave disease-related speech. Dietitian chose suitable food for menu design and gave nutrition-related lectures. Chef instructed healthy and delicious cooking skill. Pre- and post- nutrition knowledge test and satisfaction questionnaire was made. Questionnaire includes activity quality, dish, service, and presentation. Finally, a chef cooking was filmed and posted on online NTUH E-News for global viewing.

#### Results

There were 24,000 participants attending these activities in these 20 years. The most popular topics were age-related macular degeneration, hypertension, osteoporosis, metabolic syndrome, dementia, diabetes Mellitus, colon cancer. 95% of participants were satisfied with these activities. The results of nutrition knowledge test show that score increased from 3.5 to 4 (10% improving). In other words, after nutrition education, participants enhance nutrition-related knowledge and ability to make good choice for food. 'Month Cook' on global viewing NTUH E-News was appraised highly.

#### **Conclusions**

In the view of nutritional preventive medicine, expertise from different areas provides the public comprehensive health-related knowledge to help people to raise awareness of importance of health. 'Lunch party' activity helps the public to establish correct nutrition knowledge, improve dietary habit and lifestyle, and prevent modern diseases.

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## Increased Empowerment in overweight patients

### COSTI Fiorenza, MARTINELLI Franca, COLA Simona

#### Introduction

For many years overweight patients have been object of research and growing attention, in order to promote their experience of growth both as individuals and category of patients with specific requirements. The aim of this project is to improve self-esteem, self-efficacy and self-determination, to bring out hidden inner resources and lead individuals to control their abilities and make a responsible use of them. In order to get this aim, a multidisciplinary team was created to take care of patients for the whole duration of their clinical pathway and to put the idea of empowerment into practice

#### Purpose/Methods

Empowerment in clinical pathway for overweight patients was made of three steps: 1) Psychological-individual pathway: through therapeutic, educational and experiential approaches, (thanks to the help of a psychologist) we tried to encourage the transition from a learned helplessness to a learned hopefulness, in order to increase self-esteem, consciousness and sense of responsibility. 2) Organizational pathway: through the exchange of experiences and by taking part to self-help groups, we tried to overcome the personal dimension and to emphasize human relationship. 3) Community Pathway: through the cooperation with local training centers and a dietitian, healthy lifestyles were promoted, especially regarding physical activity and a renewed food education.

#### Results

The multidisciplinary team turned out to be a paramount point of reference capable of creating a coordinated and integrated clinical pathway for overweight patients. Actions taken made it possibile to promote: - the patient as decision maker with his own role and capable of taking a responsibility in actively changing his life; - health as a global good, which requires integration between actions relying on the community and those relying on individuals; - holistic approach of patient; his body, his soul and his social role.

#### **Conclusions**

Pathway for overweight patients made it possible to carry out a renewed health promotion, which doesn't mean only good healthcare but also a coordinated and integrated activity by all individuals and members of the community. The enforcement of this project made it possible to achieve the transition from Welfare State to Welfare Community. This gave full value to the community as the "place" where citizens can use their abilities and resources to undertake actions capable of improving their lives.

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Study of cognition questionnaire of weight-loss in hospital and neighboring communities: An instance in a hospital in southern Taiwan.

#### CHEN Chine-Chun, LIN Shuen-fa, LI Hua-Kuei, HUANG Li-Lan, PAN Cheng-Chin, WANG Ya-Fang

#### Introduction

Related diseases that arise from overweight are cardiovascular disease, diabetes, high cholesterol and high blood pressure, etc. Regular weight control activities not only prevent "re fat" but also achieve a healthy effect. Cognition influence behavior, behavior affects the results. First of all is to find out people's cognition of weight-loss. Based on community, we surveyed cognition of weight-loss of community residents, to provide enhancement or reference direction of weight-loss cognition in the future. The main purpose of this study is to find out the cognition of weight-loss in the hospital and neighboring communities, we use questionnaire survey in order to compare and discuss the differences between cognition and behavior of weight-loss of respondents in SinYing hospital and neighboring communities, after the discussion and analysis, put forward as the direction for future research.

#### Purpose/Methods

The questionnaire is restricted by the areas and scale, therefore in the proximity of the hospital and neighboring communities, discussion on the staff, volunteers, patients and community residents design a questionnaire for cognition of healthy weightloss. Name of Questionnaire: Cognition questionnaire of healthy weight-loss Content of Questionnaire: Basic data, the most effective methods of weight-loss, the correct methods of weightloss, rapid weight-loss is easy regain weight, satisfaction of my figure now, with or without weight-loss experience, the reason of weight-loss and the mean duration of weight-loss program etc. total 8 items. Date of Questionnaire: June 1, 2012 to November 31, 2012 Area of Questionnaire: SinYing Hospital (SinYing District, Tainan city, Taiwan, R.O.C.) and neighboring communities. Object of Questionnaire: Staffs, volunteers and patients of hospital, community residents. Persons of Questionnaire: 500 people Definition of BMI: This article roughly divided BMI (Body Mass Index) into three kinds of weight: BMI < 18.4 is underweight; 18.5  $\leq$  BMI  $\leq$  23.9 is normal weight; BMI > 24 is overweight. Data sources are from the questionnaire, SPSS carry out crosscomparison and then analysis the data, in order to compare and discuss the differences between cognition and behavior of weight-loss of respondents in SinYing hospital and neighboring communities as the direction of future studies.

#### Results

The healthy weight-loss issues results are as follows: Statistical results of basic data of respondents are as followsVia the statistical results, there are 287 people have regular exercise habit (excercise control), account for 57.4% and there are 306 people have five fruits and vegetables every day (diet control), account for 61.2%. Topics of Questionnaire: 1. Most effective weight-loss methods that you think. This is multiple response questions, the finding of top three are: Exercise(first), 471 people Eating smaller meals more frequently (second), 245 people Diet , 160 people Food rinse in water, 32 people Chinese medicine (acupuncture, needles buried), 31 people Diet pills, 10 people Western medicine surgery, 7 people Liposuction, 5 people Others, 4 people Vomiting, 2 people 2. Most proper weight-loss methods that you think. This is multiple response questions, the finding of top three are: Exercise(first), 476 people Eating smaller meals more frequently (second), 236 people Diet (third), 144 people Food rinse in water, 36 people Chinese medicine (acupuncture, needles buried), 33 people Western medicine surgery, 7 people Diet pills, 6 people Others, 4 people Liposuction, 2 people Vomiting, 2 people From the results presented in this population of survey, the most effective proper weight-loss methods are: exercise, eating smaller meals more frequently and diet are among the top three. Means that the cognitive aspects of weight-loss of majority respondent are fit with the advocacies of healthy weight-loss method from the Ministry of Health and Welfare: Eating smart, exercise happily. That is, from diet and exercise two elements carried on weight control. The population of survey divided into three kinds of weight with BMI and Survey content (rapid weight-loss is easy regain weight, satisfaction of my figure, with or without weightloss experience, the reason of weight-loss and the mean duration of weight-loss program etc.) carry out cross-comparison, the results are as follows: Table 1: Cross-comparison results with BMI and rapid weight-loss is easy regain weight (table1) The results show that: Rapid weight-loss is easy regain weight, respondents of the majority show Agree have 233 people account for 46.7%; followed Strongly Agree have 137 people account for 27.5%. That is, in the cognitive concept, 74.15% of people agree that rapid weight-loss is easy regain weight. Table 2: Cross-comparison results with BMI and satisfaction of my figure now (table2) The results show that: Respondents of the majority show general satisfaction of their figure now; followed Disagree. Interestingly, normal weight (18.5  $\leq$  BMI  $\leq$  23.9) group show Disagree and Strongly Disagree with the satisfaction of their figure now have 99 people, account for 36.9%. Agree or strongly agree have 48 people, account for 17.9%; And overweight (BMI > 24) group show Disagree and Strongly Disagree with the satisfaction of their figure now have 56 people, account for 27.5%. Agree and strongly agree have 75 people, account for 36.8%. Compared to overweight group and normal weight group, overweight group show higher satisfaction of their figure than normal weight group; normal weight group have higher self cognitive required standard of figure than overweight group, it seems correspond to a Chinese proverb, "心寬體胖xīnkuāntǐpàng" means optimistic and cheerful mood, carefree life, the body's naturally fattening. Table 3: Cross-comparison results with BMI and with or without weight-loss experience BMI With or without weight-loss experience

The results show that: Normal weight group (18.5  $\leq$ BMI  $\leq$ 23.9) also have experience of weight-loss are 153 people, account for 57.1%; Overweight group (BMI > 24) also have experience of weight-loss are 126 people, account for 61.8%. Show that either



normal weight or overweight groups, there are nearly sixty percent people had weight-loss experience. Table 3 compare to Table 2: Table 3, although 57.1% of normal weight group have experience of weight-loss, but Table 2 normal weight group show Disagree and Strongly Disagree with the satisfaction of their figure now account for only 36.9%; Table 3, 61.8% of overweight group despite have weight-loss experience, but Table 2 overweight group show Disagree and Strongly Disagree with the satisfaction of their figure now account for only 27.4%; Table 2, the self cognitive of satisfaction of their figure in overweight group: General, Agree, Strongly Agree with 72.5%, indicated that the majority of overweight people think their figure as good or acceptable. Also overweight people of the total number acount for 40.9%, amount them only 61.8% have experience of weightloss, 38.2% actually don't have experience of weight-loss, which explain nearly forty percent of overweight people on the cognitive aspects of satisfaction of their figure as good or acceptable, do not think weight-loss is necessary. While sixty percent of overweight people despite have weight-loss experience, and overweight people show the satisfaction of their figure as well as Disagree and Strongly Disagree only account for 27.4%, this point is also show that overweight people think their figure as good or acceptable. Table 4: Cross-comparison results with BMI and The reason of weight-loss (table4) The results show that: In the cognitive aspects, three BMI groups are considered that healthy is the most important reason for the weight-loss, account for 84%. Table 5: Cross-comparison results with BMI and The mean duration of weight-loss program (table5) The results show that: In the practice aspects, 188 respondents account for 51.2%, their weight-loss program were within a month, more than half of the respondents were only do short-term weight-loss program. 102 respondents account for 27.8% of the total number. Their weight-loss program has never stopped.

#### Conclusions

The results of the questionnaire, responses of the respondents in the cognitive aspects of weight-loss on exercise, eating smaller meals more frequently and diet are consistent in healthy weight-loss which is start weight-loss program from exercise and diet. Also in the cognitive aspects nearly seventy percent of people agree that rapid weight-loss is easy regain weight, but in practice aspects, about fifty percent of people taken short-term weight-loss program. There is a considerable gap on cognitive and practice aspects of short-term weight-loss.

#### Comments

Cognition influence behavior, behavior affects the results. The recommends in the future is strengthened in the direction of cognition of healthy weight-loss: 1.Sustained and persevering excerice or 2.Cultivate all citizens excerice habits or 3.Lifetime excerice are three main contents of healthy weight-loss to be propagate in the future.

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## Application of transdisciplinary team model into the weight control program

### FU Chao-Yang, HSIAO Yu-Tuan, CHIEN Jung-Yien

#### Introduction

Obesity is an important risk factor for many diseases, including diabetes, hypertension, dyslipidemia, and coronary heart disease. The World Health Organization have indicated that about 44% of adults are overweight or obesity in the world. Therefore, there is a current need for the development of novel model and therapeutic strategies for obesity.

#### Purpose/Methods

This study applied the trans-disciplinary team model on the weight control program in a southern hospital of Taiwan. We held the weight loss program over a series of 5 sessions, and every time the program lasted for 8 weeks. These programs involved 50 community subjects. These programs were developed based on the interdisciplinary approach including nutrition, Chinese medicine, aerobic and exercise. Pre-and-post test data was collected to examine the difference in knowledge, attitude, behavior and biochemical data

#### Results

The result have shown that the scores for weight loss knowledge, attitude and behaviors were increased by 8%,2% and 17%, respectively. The means of weight and body fat decreased by 3.5kgs and1.3%, respectively. The means of waist circumference and buttock circumference reduced by 5.1cm and 3.9cm, respectively. The means of total cholesterol and triglyceride decreased by17 mg/dl and 31 mg/dl, respectively. In addition, the means of high-density lipoprotein for 21 subjects increased by 1.6 mg/dl.

#### Conclusions

Taken together, in this study, we demonstrated that transdisciplinary team model has been used successfully in the weight control, and these data provide an important strategy for obesity subjects.

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Community Residents Weight Control Project Meant to Lower the 3 High Metabolic Risk Factors and Prevent the Obesity-Related Diseases

#### HSIEH Lan-Chi, YEN Yu-Chin, WU Ya-Hui, WU Hwei-Mei

#### Introduction

The World Health Organization (2009) estimated that overweight people may suffer greater risk of many diseases. Obese adults also become a high risk group of high blood pressure, high blood sugar, and high blood lipidemia. In Kaohsiung, Taiwan, the proportion of overweight or obese adults was up to 43.5%. Thus, the aim of this project was to help the community residents controlling body weight to lower the 3 high metabolic risk factors and prevent the obesity-related diseases.

#### Purpose/Methods

In 2013, 62 community residents joined, and 45 residents finished the 8 weeks weight control project. This project included nutrition serial lectures, diet cooking demonstrations, aerobic exercise and on diet design. Pre- and post-biochemical test data regarding weight, waist circumference, hip circumference, blood pressure, fasting blood glucose, cholesterol, and triglyceride would be collected and analyzed as individual results and future guideline for continuously body weight control.

#### Results

The 45 residents who finished the project had lost 120 kg altogether, averaging waist circumference reduction was 3.0 cm per male, and 5.9 cm per female; averaging hip circumference reduction was each male 3.3cm, and each female 3.0 cm; averaging blood pressure decreased from 127.5/77.9 to 117.1/74.9 mmHg; fasting blood glucose down from 100.8 to 99.5 mg/dl; cholesterol dropped from 206.9 to 200.2 mg/dl; and triglyceride 153.0 fell to 131.7 mg/dl.

#### Conclusions

This weight control project was to lower the 3 high metabolic risk factors by providing proper diet control and exercise. The correct diet and healthy concepts, corresponding to those residents who finished this project, was 70.5% at the beginning, 81.0% at the mid-term, and 88.8% at the end of the project. However, the continuity of carry on proper diet control and exercising would be even more important for all.

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An outcome of an adjunctive telephone intervention for weight reduction program

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#### Introduction

Obesity is a common phenomenon in developed countries and increases medical side effects, such as cardiovascular disease and diabetes mellitus. Whether telephone-based weight reduction is an effective clinical healthcare skill or not is remained inconclusive.

#### Purpose/Methods

All participants attended weight reduction program three times per week for eight weeks in 2013. Participants were randomly into two groups. Intervention group received reminder through the telephone during weight reduction program. Anthropometic measurement and body fat composition were recorded before and after the program. The difference of between two groups was calculated by linear regression model.

#### Results

There were 17 people involved in our weight reduction program. 9 participants were intervention groups and the others were control group. Weight, fat composition, waist and hip circumferential were similar in two groups (P>0.05). After the program, the average body weight reduction was -3.31kg in the intervention group and -5.46kg in the control group. After adjusting for initial body weight, the average change was not related to telephone intervention (P=0.092).

#### Conclusions

In the weight reduction program, the body weight and fat composition were decreased after two months. However, the change between two groups did not reach statistically significant.

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Weight management program at a regional hospital: an evaluation of effectiveness

## HUANG Mei-Ling, OUYANG Chung-Mei, CHANG Teng-Yun, LU Ching

#### Introduction

Based on the 2008 National Nutrition and Health Survey in Taiwan, 44% of adults were overweight or obesity. It was a challenge for obese individuals to change diet and exercise behaviors by themselves. Group education or counseling is considered as a cost-effective way to treat people for changing lifestyle behaviors. Additionally, some research demonstrates that group weight loss counseling may be equally or more effective than individual treatment.

#### Purpose/Methods

The Aim of this study was to determine the effectiveness of the short-term weight management program at a regional hospital.



Methods: forty—one overweight or obese subjects aged 18 to 65 years participated in this summer program of 2012. Weight, waist circumference and % of fat body changes were calculated as the median difference from the first date of participation to the last. Participants had to receive two-hour weight management courses and 50-minute exercise training classes once a week for two months.

#### Results

All participants (n=41) had a BMI of 28.2 kg/m2 in the beginning and 26.9 kg/m2 at the end of the program. The median weight loss for all participants was 3 kg or 4.5% of initial weight in two months. The median percent of body fat loss was 2% and the median of waist circumference reduction was 4 cm. Weight-related nutrition knowledge was also increased 13.3% (p<0.01).

#### **Conclusions**

A regional hospital-based weight management program emphasized on lifestyle interventions through group education and peer support can result in important short-term weight losses. It may also be an effective way or beginning for those people who try to learn the recommended skills of weight management.

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## Efficacy of a telephone counseling service in nation-wide weight management program

#### KAO Hsin-Nung, CHENG Yu-Hsin, AO-IEONG Ka-Me, LIN Ming-Sung, LIN Ching-Ying, CHIEN Yi-Wen, LIOU Tsan-Hon, CHIOU Shu-Ti

#### Introduction

In Taiwan, the prevalence of overweight and obesity is 51% in male and 36% in female which results in tremendous increase of cost due to obesity-related diseases (Health Promotion Administration, Ministry of Health and Welfare). Since 2011, the Taiwan Health Promotion Administration promoted the obesity preventing action, "Healthy centenary, Healthy Taiwan", and the "0800 toll free weight- management telephone consulting center" was established. The objects of this call center were to: 1. answer the questions in in-house weight management practice, and 2. follow-up and instruct those in weight- management programs.

#### Purpose/Methods

In this weight management program, an expert-reviewed Knowledge-Attitude-Practice (KAP) questionnaire was applied to evaluate the efficacy of "education through telephone consulting" and the weight status of each subject was also

recorded. The KAP questionnaire included questions of diet, behavior and daily practice. The subjects were requested to answer the questionnaire in the beginning and at the end of the study. The study period was from June, 2011 to October, 2013.

#### Results

A total of 9,636 calls were received during 2011 to 2013. Among them, 377 subjects (86 males and 291 females) agreed to participate in this study. The mean age was 42±13 years and the mean BMI was 27.1±4.8kg/m². After a four-week of telephone counseling and follow-up, they lose 1.9±2.7 kg in average. Fifty three percent of the subjects improved in weight management knowledge, 38% improved their attitudes towards weight management, and 20% improved in their weight management behavior.

#### Conclusions

The nation-wide telephone counseling center provided an immediate counseling service and was proved to improve subject's knowledge and attitude towards weight management I and facilitate them to lead a better lifestyle than before through a series of follow-up calls in a 4-week period.

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## The Effect of Different Ways for Weight Loss Activity Interventions

#### LIN Li-Chun, YANG Tien-Yi, HUANG Chih-Kun, KUO Hsin-Chih, CHI Shu-Ching

#### Introduction

Obesity is a growing worldwide health problem. The obesity problem could be solved by intervention in health promoting hospitals. A hospital which have engaged the weight loss activities in Taiwan found the different way to affect the result of weight loss.

#### Purpose/Methods

The aim of this study is to evaluate the effect of promotion activity interventions. In Southern Taiwan, a hospital conducted the weight loss activities from January 2013 to October 2013. Three months records would be taken for 218 participants who are obese (BMI of 20 kg/m2 or higher) and not pregnant aged from 18 to 65 years old. The way of intervention contain the health consulting or not, and participant source come from institutions or not. Paired t-test and one way ANCOVA would be used to find the difference of weight change before and after interventions three months later.

#### Results

After intervention three months later, the average weight loss of 30 males and 188 females were 2.26 kg and 1.67 kg respectively. Significant weight loss was found either male or female, but no

significant difference was found between male and female. Moreover, the average weight loss of 29 persons who accepted health consulting in OPD and 189 persons who didn't accept health consulting were 5.64 kg and 1.15 kg respectively. Significant weight loss was found and significant difference was also found between these two groups. The average weight loss of 112 persons from institution sources and 106 persons from personal source were 1.06 kg and 2.48 kg respectively. Significant weight loss was found and significant difference was found between institution and personal sources.

#### Conclusions

Participants who have a health consulting would have significant weight loss, such as weight loss education, health diet preparation, lifestyle adjustment. Personal source had a significant weight loss than institutional source since personal participation may have higher motivation.

#### Comments

When health knowledge, diet, and lifestyle direction were given through health consulting, the intervention process would have the better weight loss effect.

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#### "I LOVE" - Healthy Weight Loss Program for Chronic Psychiatric Patient

## WANG Hsueh-Yin, HUANG Hsin-Jou, SHEN Shu-Hua, WANG Tso-Jen

#### Introduction

There were approximately 54.96% of chronic psychiatric patient whom body mass index (BMI) over 24 after screening; this would cause high risk of adverse of overweight. This program is to promote this healthy weight loss actively, 50% participants were expect that their BMI got improvement. The purpose of this study was to explore the BMI values changing circumstances.

#### Purpose/Methods

Subjects were184 chronic psychiatric inpatient who body mass index (BMI) over 24. "I LOVE" formulas used in healthy weight loss program, this formulas represent I(IMPORTANT)、L(Loss Body Weight)、O(OCCUPATIONAL THERAPY ACTIVE)、V(VEGETABLE)、E(EXERCISE),Nurses as the ward health promotion seeds, and body weight measured every week, to record files to a computer platform , and then data collection, statistical analysis with SPSS 19.0.

#### Results

(1). 67.9% chronic psychiatric patient who BMI improvement , and the previous measurement is moderately obese (30  $\leq$  BMI

<35) who most effective (m =  $1.82 \pm 2.04$ ) (2).BMI improvement and promote the effectiveness of the relevant ward: Some wards BMI of more than 70% decline in the ratio, while a BMI of some participants in the intervention plan "rather than decreased," but also because there are significant differences in the different wards.

#### Conclusions

The results found that some weight loss results by wards affected and there are differences, and then look forward to the follow-up team depth discussion of each ward office to promote healthy weight loss success and difficulties, the rehabilitation of mental patients in order to enhance the effectiveness of weight loss.

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## Tackling the obesogenic environment at a famous night market

### WENG Pei-Hsuan, LEE Shiang-Lin, LIU Yi-Li, LO Chia-Lin, JOU Jen-Jen, HUANG Hui-Ting

#### Introduction

Night markets are popular places to enjoy Taiwanese cuisines for both locals and travelers, but the tasty foods are usually high in energy density. Taiwan Adventist Hospital developed an intervention program to combat the obesogenic environment, cooperating with the Songshan District Health Center and Raohe Street Night Market Committee.

#### Purpose/Methods

The dieticians completed calorie survey at 28 food stalls and offered consultation with the cooks. A "traffic light" rating was displayed along with nutrition labels. A free mobile app was designed to help the consumers eat according to individual calorie demands, using the food map with calorie labeling. Information of the surrounding walking trails was also provided, offering an option to burn the over-consumed calories. Dietary and exercise records can be tracked by the app.

#### Results

A 5-day promotion activity was held to educate the consumers reading nutrition labels and planning balanced meals. We encouraged people to eat more fruits and vegetables by combining foods with "red light" labels and those with "green light" labels. They can also decrease the food portion by sharing with friends. About 92% of participants agreed that the information had a positive impact on their diet choices, and 20% of the street vendors even profited more by building a health-conscious reputation.

#### **Conclusions**

This pilot program offered a direction to improve the obesogenic environment through the collaboration between the hospital,



government, and food sellers. The consumers can make healthier food choices through education and disclosure of nutrition information, and thus prevent obesity.

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Nation's First Night Market Kinetic Life~Dynamic Cloud, Leisure and Sports, and Feasts of Fine Food in Shilin District~

#### WU Chao-Hua, HUANG Chiu-Yu

#### Introduction

Following changes in lifestyle,more and more people eat out,and people's health is often compromised by issues,such as chronic conditions and overweight. The Shilin District Health Center, under the premise of "innovativeness", has built new, two-track health features for the Shilin Night Market —"Tourist Health Paths" and "Tourist Gourmet Map" —and has developed the Healthy Diet and Sports Cloud Services Platform, creating an exclusive "night market dynamic life", to popularize the promotion of fine supportive environments for obesity prevention in Shilin District.

#### Purpose/Methods

(1)Using dynamic maps,8 walking paths and a tourist gourmet map were designed,incorporating dynamic living creativity,to allow citizens to obtain health information while walking and enjoying fine food. (2)To have Shilin residents pay more attention to the idea of self-care and to have them know well the locations of exercise sites and healthy delicacies in their neighborhoods, the Healthy Gourmet and Health Education Guide Board that incorporated local features was set up at the important entrances/exits of the night market.

#### Results

(1)On September 30,2013 the "Shilin Night Market – All Food,All Perfect,Walking So Easy" promotion event was held at the Shilin Night Market in the afternoon.The event received enthusiastic response and was reported by numerous media outlets. (2)More than 1,000 people checked out the dynamic maps,and the number of walkers increased by 474, compared to the same period last year. (3)The Shilin Age-friendly and Healthy City Achievement Exhibition was held on November 12, 2013 during which 427 visitors got to experience on site.

#### Conclusions

In 2012,the center launched the nation's first kinetic-simulating sports map and,in 2013,added two dynamic maps of the Shilin Night Market—"Tourist Health Paths" and "Tourist Gourmet Map". Community members are able to quickly make a zero-distance contact in reality with the dynamic living environment and have the ability to smartly choose their preference of healthy

diet. Along with the proper amount of exercise to burn off excess calories, residents can eat more healthily and more balanced to subsequently live healthy lives.

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Implementing health promotion in hospital for orthopedic patients-conducted by smoking cessation and weight control

#### WU Tuoh, WONG Tze-Hong, CHEN Meng-Kan, OUYANG Chung-Mei, HSU Fan, WANG Tsai-Ping, WU Chia-Fang

#### Introduction

The standards of WHO health promotion are suitable for multiple aspects of hospital quality management and improvement of clinical care. In accordance with the five standards for health promotion in hospitals, since May 2013, the National Taiwan University Hsinchu Branch has assigned the Department of Orthopedics as the participating department; by comprehensively documenting hospital health promotion services in medical records and developing clinical care pathways for health promotion intervention, we aim to develop a preliminary model for health promotion intervention.

#### Purpose/Methods

A Health Promotion Requirement Evaluation Form was developed to improve medical record documentation. Smoking cessation and weight control intervention services were provided to department patients via information handouts, education and referral to relevant departments in order to provide health promotion intervention and continued follow-up. Intervention pathways were designed for both inpatients and outpatients to develop an execution system for health promotion clinical care. Multiple departments were coordinated to promote health promotion to encourage staff knowledge and participation of program.

#### Results

As of 30 November 2013, medical records incorporating the Health Promotion Requirement Evaluation Form have gradually achieved the goals maintained by Project standards, with execution rates approaching 100%. 1989 department patients (47% inpatient, 53% outpatient) have received health promotion intervention services and continued follow-up, with 1532 (77%) achieving "Patient Information " and "Health Education" parameters; inpatient and outpatient execution rates were 99.3% and 57.1% respectively. Smoking cessation and weight control referral execution rates were 14.1% (216) and 8.9% (137) respectively.

#### Conclusions

Through comprehensive documentation of hospital health promotion services and development of health promotion intervention clinical care pathways, along with coordination of resources to encourage staff knowledge and participation of program, the National Taiwan University Hospital Hsinchu Branch HPH Workforce has established a model for health promotion intervention. Through our preliminary execution and results, we have found our model feasible; future work will focus on combining the efforts of multiple departments, meticulous documentation and providing more comprehensive health promotion intervention services.

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## A weight reduction program by a multidisciplinary team in the community

### LI Ying-Ying, CHEN Meng-Kan, CHIANG Chien-Wen

#### Introduction

The prevalence of obesity is increasing year by year. Previous studies have indicated obese persons are at higher risk for metabolic syndrome and cardiovascular diseases. Moreover, it will be a tough challenge for the healthcare system because of the increasing medical expenses for these chronic diseases caused by obesity. Therefore, we propose an 8-week weight reduction program conducted by a multidisciplinary team (including doctors, nurses, dietitians, and exercise instructors) for residents in the community.

#### Purpose/Methods

Volunteer residents with BMI greater than 24 kg/m2 were enrolled. Blood pressure and anthropometric measurements (BMI, waist/hip circumference, and body fat) were measured before and after the program. Doctors educated about the potential harms and complications due to obesity. Exercise programs proceeded three times a week by exercise instructors. Dietitians provided nutrition suggestions by a diet diary for a balanced diet. Nurses are responsible for follow-ups by telephone once a week in order to enhance positive attitude for weight reduction.

#### Results

Nineteen residents joined this program. Mean age was  $49.6\pm13.7$  years old. Total weight reduction was 81.8 kg in eight weeks. Each person reduced weight by 4.3 kg in average after this program. In comparison between pre and post intervention, systolic blood pressure, BMI, waist circumference, hip circumference, and body fat reduced significantly (p < 0.05). The percentage of enrollees exercising three times a week rose from 31.6% to 84.2%. The

improvement rate of awareness of weight reduction increased by 15.5%.

#### Conclusions

Prevention for obesity rely on lifestyle modification and behavior change. Dietary control and exercise training are the main principle for weight reduction. This program is designed on the basis of health belief model and trans-theoretical model. It could strengthen their willpower for weight reduction by a small peer group. It also provides incentives and rewards for enrollees to enhance their motivation.

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## Medical evidence corroborated drink black tea or green tea can prevent cardiovascular disease

### HONG Sue-Mei, SU Tsai-Yun, YANG Yu-Ying

#### Introduction

Black tea and green tea is a very common and cheap drinks, modern medical research has proved: Also said that the health benefits of tea is really health. German scholars also made an interesting experiment, experimental team let 21 healthy female subjects drank black tea and green tea, first test before drinking and after two hours after drinking the test and compared with a control group drinking. The results found that drinking green tea and black tea on cardiovascular endothelial cells can promote well-functioning.

#### Purpose/Methods

So I search for relevant information with evidence-based medicine search to a published time of June 18, 2013 of "green and black tea on the primary prevention of cardiovascular disease", selection criteria Randomised controlled its adult trials (RCTs) involving lasting health or those with at least three months of cardiovascular disease in high-risk groups. Experimental study on the intake of green tea, black tea or tea extract. Control group of non-intervention, placebo or minimal intervention.

#### Results

It was found that both types of black tea and green tea, exhibited together for the low density lipoprotein cholesterol ( MD -0.48 mmol / l, 95% Cl -0.61 to -0.35) and blood pressure ( SBP favorable impact : MD -2.25 mmol / l, 95% Cl-3.39 to -1.11 ; DBP : MD -2.81 mmol / l, 95% Cl-3.77 to-1.86). Black and green tea can really reduce cholesterol or ower bad cholesterol or stable blood pressure, contribute to the effectiveness of the prevention of cardiovascular disease.

#### Conclusions



Cardiovascular disease (CVD) is a global health burden. But, if the number can be changed by changing the risk factors, including the intake of tea. We found 11 randomized controlled trials of four inspection checks green tea intervention and seven intervention. The result is black and green tea have a beneficial effect on blood lipid levels and blood pressure. But still need more long-term tests to confirm this.

#### Comments

Hospital dietitian Zhongzi Wen said the revitalization although tea contains catechins good chemical substances,but it's also have harm, even with such studies,we're not encourage drinking too much tea a day. So in fact, the physician may recommend patients with cardiovascular disease and even healthy people can usually also drink a little tea or green tea to reduce cholesterol or lower bad cholesterol or stable blood pressure. It is help prevent cardiovascular disease, actually sustained health services and health promotion.

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## Obesity Control Initiative- Street Food Calorie-labeling Campaign

#### LIAO Ling-Ling, LIU Shu-Ling, LO Yu-Tai, HUANG Shu-Yii, YEH Ching-Chi, YANG Yi-Hua, LIOU Wen-Chin, CHAN Li-O

#### Introduction

The All-Cause Mortality from WHO suggests a positive correlation between BMI and the risk of death. According to the ANGELO framework, the environmental factors play a more important role to individual obesity than the genetic factors. The eating-out street food culture in Taiwan is proved to be highly associated with the cause of local obesity. Our project seeks to combat obesity by educating the public about the calorie content of the street food they purchase.

#### Purpose/Methods

The objectives of our project are to assist at least 10 merchants in labeling the nutrition facts of their products, ensure the access of associated knowledge, and suggest the appropriate amount of calories for weight management. Our hospital will integrate our resources with the local community to jointly assist the local street venders in calculating and labeling the nutrition facts of their products. We will also partner with the press and government to give media coverage and recognize their efforts.

#### Results

i. 11 street venders in Kaohsiung Liu-He International Night Market successfully labeled the nutrition facts of their famous dishes. ii. 450 attendees for the campaign result announcement: The director of the local health center celebrated the great accomplishment of our campaign with the associated street

venders, local volunteers, and the child stars dressed in special street food costumes. iii. 13 media coverage that created great publicity for the obesity control issue.

#### Conclusions

Obesity is a major indirect cause of many deadly diseases. Given the popular eating-out and night market culture in Taiwan that promote excessive calories intake, our hospital seeks to fight obesity by minimizing these environmental factors. We targeted the major international night markets in Taiwan to create a better publicity on both local population and the tourist. We expect the campaign to have a positive effect on establishing a healthy local food culture and improve the public health.

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# Experience Sharing of Special Population Successful Healthy Weight Loss – Longci Education and Nursing Institute for the Disabled in Taiwan as an Example

#### CHIU Ge-Lin, WU Mei-Hui, SU Yi-Hwa, CHANG Jia-Ping, CHANG Mei-Jen

#### Introduction

According to Ministry of Health and Welfare in Taiwan, the proportion of overweight/obese in adults is around 44% with an increasing trend. Of the ten leading causes of death in Taiwan, as much as seven causes were associated with obesity. Longci Education and Nursing Institute for the Disabled in Taiwan is set up for caring chronic mental patients and people with disabilities. These chronic mental illness minorities had higher obesity prevalence and were more vulnerable to obese-genic environment.

#### Purpose/Methods

We lead a one-month healthy weight loss program to help these Institute residents to set up the health-promoting habit including healthy diet and regular exercise. The Methodist teachers of National Cheng Kung University Hospital not only teach residents the correct dietary and active-living concepts but also let them learn by doing to prepare low-calorie diets by themselves and group exercise together.

#### Results

After one month healthy weight loss program, the fifty overweight residents (BMI  $\geq$  24) successfully lost weight more than 30 kilograms in total. Two of them had lost 2.7 and 2.6 kilograms, respectively, and were awarded as "weight-loss champion". The residents participated in the healthy weight loss program had not only reduced the BMI and waist circumference,

but also increased their flexibility, muscular strength, physical and mental coordination condition.

#### Conclusions

With the success of media exposure by National Cheng Kung University Hospital, the residents had got more sense of accomplishment and were empowered to sustain weight loss. In support of president of Longci Education and Nursing Institute for the Disabled, culture of healthy eating and regular exercise can be sustained in the future.

#### Comments

National Cheng Kung University Hospital in response to the Government to promote "obesity prevention" issue was in collaboration with Longci Education and Nursing Institute for the Disabled.

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# Improvement of Outreach Community Nutritional Education Program: an Experience from Southern Taiwan

### HUANG Ching-Hsiu, LU Hung-Yi, LI Ya-Li, LIN Yu-Chen, LIN Ming-Nan

#### Introduction

The prevalence of chronic diseases such as hypertension, diabetes, hyperlipidemia is high in Taiwan, especially in communities with many elder people. Nutritional knowledge is important for the patients in controlling these diseases. How to deliver nutritional knowledge adequately in health education program, we conducted a survey for evaluation of our outreach community nutritional education program.

#### Purpose/Methods

16 public health nurses working in a county in southern Taiwan were recruited to participate in this study in 2013. The institute of research board of the hospital approved the study, and written informed consent was obtained from each respondent before they answered the questionnaire. Each of them participated in a 30-minute face-to-face in-depth interview and answered all questions proposed by the researchers. The questions are about how to improve the effect of the outreach community nutritional education program.

#### Results

The findings of the study showed that the temple could be a good place for health promotion education. Also, singing and game-playing could motivate community residents' intention to participant in health promotion activities. Most importantly,

entertainment-oriented activity design could enhance the effectiveness of health promotion programs.

#### Conclusions

Public health nurses emphasized that they did learn something and knew how to adapt the communication skills during the period of health education.

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# Outcomes of "Obesogenic Environment Improvement" and "Public Service Promotion" Efforts in Zhongshan

### JUNG Shiao-Ying, CHU Hui-Chuan, CHIEN Ching-Fang

#### Introduction

As shown by obesity data of the WHO, major diseases and eight of the top 10 leading causes of death in Taiwan are obesity-related, such as diabetes, hypertension, and cancer. Hence, the Zhongshan District Health Center of Taipei City has strived for the improvement of obesogenic environments since 2011, the center integrates community resources and creative public service events to assist the disadvantaged.

#### Purpose/Methods

1.Starting 2011, guidance was given to the dining industry regarding calorie and nutrition facts labeling, and marketing efforts were promoted, including location checking in, discount, and Taiwanese-style banquet. (1)Zero-burden Slim Down for Health: An individual could enjoy a 10% meal discount by checking in the location. 1,156 people participated. (2)Start of Winter Banquet~ Get-together Celebration for the Disadvantaged: Disadvantaged groups were invited to the banquet through the outcome presentation event. 51 people participated. (3)Enjoying Discount, Enjoying Slimming Down: "NT\$10 off every NT\$50 purchase" discount vouchers were handed out. 1,518 people participated in the 1-day event. 2. Walking Paths (1)Year by year, local features were increasingly promoted, i.e. "One Road for All the Splendor of Zhongshan" in 2011, "Taipei Expo Park Walking Path" and "Grid-style Healthy Life Walking Path" in 2012, and "One Path for Each and Every Borough" in 2013 for all 42 boroughs in the district. (2) Walking and Losing Weight by Exercise to Protect the Environment: The NT\$32,000 donation by Jingfu Temple as a result of the public service event in 2012, "Doing 30 Rounds of Exercise for Love, Getting Active for a Healthy Life", was entrusted to the district's director to be given to low-income families and families in crisis. The NT\$33,000 donation by Hwatai Bank, LiangChi International Group, and Jingfu Temple for the event, "Exercise for Public Service, Weight Loss for Environmental Protection", was handed



over to the Zhu-Li-Lun Community Development Association to support social welfare groups or disadvantaged families. Finally, the NT\$40,000 donation by community businesses for the "Walking All 42 Boroughs, Walking with Warranty" event in 2013 was given to the Xin-Li-Xing Community Development Association for supporting disadvantaged families.

#### Results

3,152 individuals registered for the "BMI⊇7" category. Among them, 2,139 individuals lost weight successfully, saving an estimated NT\$6,975,279 in medical expenses.

#### Conclusions

Through fine food checking in and discount, health is obtained by smarting eating, and the general public has been called to exercise regularly. The "Eating Smartly, Exercising Happily" model, being innovative and out reachable, can service as reference for other counties and cities in the nation in holding public health events.

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### Building healthy community- the diet education intervention

#### HUNG Raw-Pou, LIN Chang-Ming, LIU Tsui-Yao, CHEN Shu-Ting

#### Introduction

The study aimed to design the diet education booklets and the maps of exercise environment for inpatient, outpatient clinics and communities.

#### Purpose/Methods

We used the creative and exquisite propaganda manuals which made interaction with readers by talkingbooks. The manuals were used in the community-based education activities since Aug. 2013. The question and answer contest with prizes was held in the education programs .The feedback games was designed for the participants which was the measurement of the actual level of the parameter of interest in our study.

#### Results

The satisfactions for the education contents in the community were high in the study. The knowledge for chronic disease and obesity improved especially among the elderly persons in the community. The healthy groups can be established based on the education programs in this year.

#### Conclusions

Intervention programs were important for health promotion in the community. Residents can be impressed with various interactively education ways and change their life style.

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## Research on self-management of health position

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#### Introduction

Obesity has been regarded as a chronic disease of civilization considered "invisible killer." How to effectively control the prevalence of obesity, to make people eat healthy, physical and mental activation, is an important policy goal. The prevalence of obesity in remote areas compared to urban areas is high, healthy posture by promoting the establishment of self-management of people eating smart eating, develop exercise habits to reduce the occurrence of metabolic syndrome and chronic diseases.

#### Purpose/Methods

Employees, schools, community public health self-management using health examination, physical fitness programs, outpatient nutrition counseling, weight loss classes organized to assist businesses calorie nutrition labeling, healthy meals to eat smart talks, implement and promote the concept of motion 333 (weekly exercise 3 times, every 30 minutes, the exercise intensity reached 130 heartbeats per minute).

#### Results

In this study, the number of participants 1113 people (including weight class members); deducted ineligible (pregnancy leave, leave without pay, too old, maternity leave) Total: 463 people, can not be deducted BMI ≤20 Registration Total: 220 people, so ineligible total: 640 people. Therefore, a total number of actual participation: 430 people, a total reduction of the number of kilograms: 501 kg, weight 1.16 kg per person.

#### Conclusions

By integrating hospitals, communities, schools, etc. to provide holistic health promotion programs, so that participants in this process of gradually promote higher awareness on health, development potential ability to manage their own health, develop a healthy self-management of postural behavior to avoid good metabolic syndrome and chronic diseases, reducing medical costs.

#### Comments

The use of integrated hospitals, communities, schools provide a complete and continuous health promotion programs for staff, community members, students develop the ability to manage their health potential, develop a healthy self-management of postural behavior to avoid good metabolic syndrome and chronic diseases, improve healthy quality of life, reduce medical expenses.

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## Session P1.20: Developing tobacco-free healthcare settings

The successful promotion model of tobacco-free hospital in Taiwan: The qualitative and quantitative research analysis

#### HUANG Chu-Ya, TSAI Chia-Chi, CHO Ming-Fen, HSIEH Wu-Chi

#### Introduction

Promoting tobacco-free hospitals has been top on the agenda of the Health Promotion Administration (HPA), Ministry of Health and Welfare. Since 2011 until now Taiwan boasted 147 ENSH member hospitals, with the number and density higher than any other country in the world. Hospitals generally expressed high satisfaction with the government's tobacco control initiative. This study aims to analyze the implementation model and outcome of tobacco-free hospital initiative in Taiwan.

#### Purpose/Methods

The research examined the implementation model of Taiwan's tobacco-free hospital initiative based on the input, process and output phases. Next it analyzed the results of field investigation in the hospitals as well as by conducting a survey. The Taiwan government localized ENSH Standards and commissioned Taiwan College of Healthcare Executives to perform field investigations and certification. More efforts included professional consultation nationwide, exchanges with international experts, and workshop on tobacco-free hospitals.

#### Results

Over the three years the total number of hospitals obtaining membership the ENSH has increased to 147, accounting about 29.28% of all hospitals in Taiwan. Among them nine hospitals achieved the status of New Gold Forum Members, which represented a global share of 69.23%. The survey results showed a 100% satisfaction by all hospital respondents and they agreed "ENSH Self-audit Questionnaire" was helpful; 100% agreed field investigation and expert consultation were helpful; 95% expressed satisfaction with the field certification procedure.

#### Conclusions

Taiwan's tobacco-free hospital initiative has proven to be an effective model and received international recognition. Nearly 30% of hospitals in Taiwan joined the ENSH-Global Network. Taiwan's active involvement in ENSH is unprecedented. By continuing the implementation mode, increased participation can

be expected. Results of satisfaction survey showed that respondent hospitals were positive about the tobacco-free hospital standards and certification procedure.

#### Comments

In 2013, field investigations were undertaken in 48 hospitals. 66.67%~75% of the hospitals under investigation got full marks for the ENSH standards 5, 6 and 10; 37.5%~45.83% of them got full marks for standards 2, 3, 8 and 9. The abovementioned seven standards appeared easier to meet. However, only 10.42% of the hospitals scored fully for standard 4. Survey also identified standard 4 as the most challenging part, indicating that future efforts should be oriented toward achieving items in this area.

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#### How to achieve a smoke free Hospital

#### TORRECILLAS Susana, MARIAGES Alejandro, PÉREZ SEGARRA Anna Carol, KILLICK Andrew

#### Introduction

Smoking is one of the risk factors which cause the most morbidity and mortality in developed countries. The WHO states that tobacco kills about 6 million people worldwide and causes economic losses worth ½ trillion dollars every year. According to the European Network for Workplace Health Promotion (ENWHP), companies are an ideal setting for the implementation of health promotion programs.

#### Purpose/Methods

The complete elimination of smoking in San Rafael Hospital. A program with three phases was designed: 1 - Join the Catalan Network of Smoke-free Hospitals. 2 - Develop a stop smoking program for employees, consisting of a multidisciplinary team (physician, psychologist and nurse) coordinated by the Risk Prevention Service, offering workers help to give up smoking, individual and group therapy, NRT and anti-craving medication. 3 - Ban smoking in the Acute Psychiatric Ward.

#### Results

1 - Creation of a Promotion Committee, consisting of staff from all areas, dealing with all matters related to smoking, following the guidelines of Catalan Network of Smoke-free Hospitals. 2 - Creation of the Stop Smoking Program. 2006-13: 85 workers made 556 visits (average of 6.54 visits per worker). Results: 26% abstinence at 3 months,18% at 6 months. 3 - January 2012: Smoking was banned in the Acute Psychiatric Unit. The staff received training on counseling and brief intervention in nicotine addiction.

#### Conclusions



It is possible to create smoke-free environments in general hospitals, including the areas of mental health, via the creation of multidisciplinary teams trained in achieving the goal. Access to health promotion programs in the workplace is positively valued by workers. Since 2012: San Rafael Hospital is a smoke-free hospital.

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#### Care and Health Promotion: strategies and policies to develop smoke-free Hospitals

#### FORNERO Giulio, AZZOLINA Maria Carla, PENNA Angelo, PICCINELLI Cristiano, COPPO Alessandro, GIORDANO Livia, BERTETTO Oscar

#### Introduction

The average prevalence of smoking in Piedmont in 2008 was 23.7%, with a proportion of smokers among men of 29.3% and of 16.7% among women. The most affected group has always been between 30 and 44 years, in both sexes. A survey carried out in 2008 in thirteen Italian hospitals showed that smoking ban in healthcare facilities was not adequately enforced. It also appeared that the proportion of health professionals who smoke (both sexes) was higher than general population.

#### Purpose/Methods

Aim of this project is to facilitate the activation of smoke-free policies in healthcare environment in Piedmont and Valle d'Aosta. 13 Hospitals and Local Health Agencies joined the project. Every agency was required to: 1) institute a working group, 2) monitor lifestyles among employees, 3) communicate smoking ban, 4) activate an appropriate control of the policy 5) offer support for smokers who want to quit. Surveys, training and communications have been activated without additional costs.

#### Results

Activities started in May 2012 through the collaboration of Cancer Care Network of Piedmont and Valle d'Aosta (project funder), Regional Network of Health Promoting Hospital and Piedmont Reference Center for Epidemiology and Cancer Prevention. A training program and shared policy development steps were created. All the Institutions involved in the network have now a common policy on smoke ban and, by the end of May 2014, organizations achieving each step of its implementation will receive the initiative logo.

#### Conclusions

Smoking ban in hospitals is strategically important for an environment whose aim is not only to provide care but also to ensure citizen's health. Health promotion strategies require to

merge the indoor ban according Italian laws, with outdoor ban to create a smoke-free enviroment. Long term goals, like obtaining higher rate of quitting smoking, will be evaluated.

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#### **Outdoor smoking ban**

#### MAZZA Roberto, RUPRECHT Ario, MOTTA Valerio, DEVECCHI Paola, POZZATI Ivan, DE MARCO Cinzia, POZZI Paolo, BOFFI Roberto

#### Introduction

Several studies identified a considerable concentration of tobacco smoke found in outdoor environments and being part of ENSH, the Network of Smoke free Hospitals, represented an opportunity to better control the tobacco activity in our cancer centre in Milan (INT). Italy was one of the first European countries to legislate on environmental tobacco smoke (ETS) and since January 2005 the smoking ban in work places has been extended to bars and restaurants. But the legislation doesn't apply to outdoor areas.

#### Purpose/Methods

Our study, outdoor survey results and ENSH standards suggest a further extension of the smoke free area to all outdoor places open to the public. This requires a clear commitment from the Management together with a communication campaign aimed at health personnel and employees, a personalized brief message to all patients who smoke and attend clinics and wards of the centre; and a strategic plan to achieve smoke free outdoor areas.

#### Results

The Management of INT issued a directive that extended the smoke ban to the outdoor roofed passage to the pediatric clinic. The signs don't mention national legislation but our own anti tobacco policy and INT mission: to care for cancer patients and research their pathologies. We measured the air pollutants in this passage when smokers were present and by enforcing the ban we achieved significant reduction in particulate matter (PM 1.0; 2.5; 7.0, 10.0 and TSP) and black carbon concentration.

#### Conclusions

It is possible to promote the ENSH standards beyond national legislation, but it is essential to have commitment from organizations, their management and an effective communication plan aimed at the target audience. Measuring the impact of the anti tobacco policy on the environment may provide a further tangible opportunity for the enforcement of the tobacco control interventions.

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## **Tobacco-Free Hospitals Promotion and Application in Kaohsiung, Taiwan**

#### HUANG Chi-Cheng, YAN Yu-Jin, HUANG Hui-Fang, LIN Shu-Ling

#### Introduction

Tobacco use kills more than 5 million people per year. In the world and 280,000 died of tobacco-related diseases per year in Taiwan. Our hospital has joined the ENSH-Global Network for Tobacco Free Healthcare Services certification since 2012. We allocate annual budget and establish the Smoking cessation team to promoting smoking cessation services inside the hospital and outside communities. The result of the services have been so successful and made us win the 2012 ENSH Gold Award.

#### Purpose/Methods

Kaohsiung Municipal United Hospital (KMUH) 2012 Tobacco Free Activities: 1.All the staff was informed of the Tobacco Free Policy from the Superintendent. 2.We establish the smoking cessation team and the members include professional medical doctors, nurses, social workers and volunteers. 3.Contract agencies and outsourced services have to endorse our Tobacco Free Policy. 4.Limit smoking area within 40 meter and have clear indications. 5.Hold support hospitals tobacco free signatory and procession. 6.Professional team provides smoking cessation service for staff and patients. 7.Promote smoking control activities in the community.

#### Results

1.The smoking cessation success rate increased from 50% (2011) to 95% (2012) among the staff joined smoking cessation program. 2.The smoking Patients were referred to the educator who talked to the patients every month and phone-interviewed 3 months later. The smoking cessation success rate raised from 34% (2011) to 46% (2012) . 3.The smoking cessation service satisfaction reached 98% in 2012. 4.We achieved the ENSH-Global Network for Tobacco Free Healthcare Services certification and won Gold Award through the government authenticate in 2012.

#### Conclusions

The Hospital has hold a series of tobacco-free training and announcement activities make patients and people understand the damage and risks of tobacco use since 2012. We publish papers to promote tobacco cessation, and teach how to quit smoking in hospital's website. We train our staff to assist and maintain tobacco-free environments. Our new employee's job training also includes tobacco cessation. We promote series activities with active and positive attitude is raising our staff and also community people success rate of tobacco cessation.

#### Comments

"Health Prompting Hospital" is the aim of our hospital and Tobacco-Free is the main goal. We make effort to let smokers and

their families understand the damages and risks of tobacco use and encourage them receiving Smoking Cessation Program. The active implements did make the smoking cessation success rate increased.

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## Healthy Community Building - Create a smoke-free environment

### LIAO Ling-Ling, LIU Shu-Ling, CHEN Li-O, YANG Yi-Hua, CHAN Li-O, LIOU Wen-Chin

#### Introduction

Tobacco use is one of the greatest public health threats. According to WHO, Tobacco use kills an estimated 5.4 million people every year. In Taiwan, the smoking related cancer is also the leading cause of death. The local health institutes have been enforcing tobacco control through various acts. Besides working with the local government, our hospital is dedicated to improve public health in our community through creating a smoke-free environment and a series of anti-smoking campaigns.

#### Purpose/Methods

Our objective of creating a smoke-free environment is to raise public awareness of the health risk of smoking and second-hand smoke exposure, and also to encourage a healthier lifestyle. We are planning to convert 80% of the non-residential area to smoke-free zone. The smoke-free zone includes shopping centers, churches, workplace, and parks. In addition, we will further enhance the effect through a series of anti-smoking educational campaigns. We will also jointly enforce youth smoking prevention with the local community.

#### Results

i. 659 attendees for the 8 anti-smoking youth educational campaigns. ii. Set up effective signs at 4 smoke-free zones and 1 smoke-free workplace iii. 434 attendees for the 2 large-scale anti-smoking events: No-smoking signs unveiling event and the "No Smoking Just Walking" power walking event. iv. To draw attention from the youth population, we created a fun anti-smoking game with the basketball arcade machine. Rules: Hit the anti-smoking sign with basketballs while shouting out "Out" each time.

#### Conclusions

Partnering with local community and organizing large antismoking events are both proven to be effective ways to promote the anti-smoking idea. Through the implementation of these antismoking educational programs we seek to effectively reduce the local tobacco use by establishing a strong anti-tobacco attitude rooted in people's mind. The attitude against tobacco is likely to influence the people around them and then gradually change the society as a whole.



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## Session P1.21: Developing tobbacco-free psychiatric healthcare services

Second-hand smoke in psychiatric units: patient and staff misperceptions

#### BALLBÈ Montse, SUREDA Xisca, MARTÍNEZ-SÁNCHEZ Jose M, SALTÓ Esteve, GUAL Antoni, FERNÁNDEZ Esteve

#### Introduction

Mental health units have usually been exempted from complete smoke-free bans despite the harmful health effects of secondhand smoke (SHS).

#### Purpose/Methods

The aim of this study was to compare the self-reported level of exposure to SHS in psychiatric units by patients and staff to objective measures, and examine preference for different types of smoking bans. In a cross-sectional survey, we assessed with questionnaire self-reported exposure to SHS among patients and staff from 65 inpatient mental health units in Catalonia (95.5% of all units) and measured air concentrations of particulate matter ≤2.5µm (PM2.5) as a SHS exposure marker.

#### Results

600 patients and 575 professionals completed the questionnaire. 78.7% of them were objectively exposed to SHS (PM2.5>10µg/m3) but 56.9% of that patients and 33.6% of staff believed they were not exposed at all, and 41.6% of patients and 28.4% of staff believed the environment was not at all unhealthy. Nurses had a higher perception than doctors of being moderately-highly exposed to SHS (40.3% vs 26.2%; p<0.001). Finally, 29.3% of staff and 14.1% of patients strongly agreed with total smoking bans.

#### Conclusions

Patients and staff have a substantial misperception about their exposure to SHS and low awareness about the harmful environment in which they stay/work. This might have an influence on the preference for less restrictive smoke-free bans.

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Strength in numbers: Networking model to enhance smoking policies in psychiatric wards

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#### Introduction

Smoking prevalence in patients admitted in mental health wards can rise to 80%, and morbidity and mortality are higher than in the general population. Life expectancy for people with severe mental disorders may decrease by up to 25-30 years in contrast to the general population, mainly due to diseases caused or worsened by smoking. However, smoking has been always integrated in the culture of the mental health settings and their professionals.

#### Purpose/Methods

The objective of this communication is to describe a National strategy aimed to enhance tobacco control in hospital mental health settings. In 2007, the Catalan Network of Smoke-free Hospitals promoted the creation of a working group recruiting key professionals as early adopters in the Roger's change model. The group received the support of the Government of Catalonia to effectively implement and disseminate the activities developed by consensus by the group.

#### Results

Professionals from almost every hospital in Catalonia with mental health wards have progressively joined the group in order to act as leaders in the implementation of tobacco control policies and procedures in their hospitals and beyond. The main activities achieved by the group have focussed on a) research (evaluation of tobacco control policies in Catalonia), b) enhancing staff training and awareness about smoking cessation intervention, and c) elaboration of guides (clinical and good practice guidelines, etc).

#### **Conclusions**

This strategy has achieved a progressive improvement in tobacco control policies in mental health wards. However, some

challenges still remain and the group is still active. The group has contributed to the public health and health promoting fields in this controversial setting providing scientific evidence and unifying criteria in clinical practice and policies.

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## Promoting psychiatric inpatients rights for non-smoking support

#### PARISOD Heidi, LAINE Heidi, POHJOLA Minna, HUPLI Maija

#### Introduction

The hospital district of South West Finland is part of the Association of Health Promoting Hospitals and a non-smoking hospital district. Thus, the hospital district aims at promoting patients' rights for non-smoking support and decreasing smoking in the hospital area. Smoking is a special health risk for psychiatric patients as the majority of them smokes. For example the risk for cancer and cardiovascular diseases is double compared to average population. Thus, non-smoking support is especially important for psychiatric patients.

#### Purpose/Methods

The aim of this project was to promote the psychiatric nurses' awareness of the importance and the possibilities to carry out non-smoking support at inpatient wards. An activating non-smoking lesson was carried out for nurses in three psychiatric wards in October 2013. The lesson included information related to non-smoking support, a material package for ward use, practical exercise of the use of nicotine replacement therapy products and possibility for micro spirometer tests. The participant evaluated the lessons with written feedback.

#### Results

Altogether 27 nurses answered to the feedback questionnaire. The mean of the practical arrangements was 8.6 (scale 4–10). The majority of participants (93%) felt that their knowledge related to non-smoking support had improved after the lesson. In addition, over half of them felt that their opinions related to the possibilities (54%) and the importance (56%) of anti-smoking support had changed. Almost everyone agreed that the lesson was motivating (93%) and that the material package was a good idea (96%).

#### **Conclusions**

According to the results the project was successful. In addition, the atmosphere during the lessons was positive and the topic provoked a discussion. These results point out that non-smoking projects should be implemented at a wider range without preconceptions in psychiatric wards to support patients' rights for information and non-smoking support.

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## Implementation of smoking ban in mental hospitals in the view of the staff

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#### Introduction

According to WHO, one-third of the world's adults smoke and three and half million people die each year from smoking-related diseases. National scale smoking ban applies not only to Lithuania where since 1996, according to Tobacco and Alcohol Control Law, smoking is forbidden in the premises and territories of health care facilities. The implementation of these constrictions raises a number of issues in a hospital for mental patients. Of their condition, unable to adapt so it is not the right time to change their habits.

#### Purpose/Methods

To reveal the attitudes of the hospital staff towards the feasibility of banning smoking in a psychiatric hospital. A questionnaire was distributed to the staff of psychiatric hospital with 3 question groups: 1. To find out the beliefs about the reasons and incentives of smoking, comparing smoking habits of the mentally disturbed and the general population; 2. To learn how the respondents evaluate various negative consequences of smoking; 3. To learn what limitations are likely to be most efficient to limit or to prohibit smoking of patients in health care facilities in general and in mental hospital.

#### Results

Almost all staff members know the legal prohibition of smoking in health care facilities. In their opinion people do smoke due to their nicotine dependence, the need to calm down and experience enjoyment. 60% believe that mental illness strengthens the craving for tobacco, helps to forget problems, facilitates communication. 85% agree that smoking is worth quitting due to financial reasons, and 50% - because of conflicts in hospital and at home. The respondents consider that in mental hospital smoking ban is possible only partially. The most effective means are education, alternative occupation, aid to smoking cessation.

#### Conclusions

1. The staff of mental hospital believe that people with mental disturbances smoke more than others and become addicted to nicotine faster 2. In the opinion of the staff only partial ban of smoking is possible in hospital, by means of gradual limitations. 3. Education about negative consequences of smoking, professional aid for cessation and alternative activities were found to be the best means for reduction of smoking in mental hospital.



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# Exploring the Effectiveness of Health Education Groups For Chronic Psychiatric Patients in quitting smoking

#### CHANG Shu-Mei, XU Sui-Lian, SHEN Shu-Hua

#### Introduction

The purpose of this study was to investigate the effectiveness of supporting health education group intervention for smoking cessation in chronic psychiatric patient, providing correct knowledge of tobacco-related understanding, enhance motivation to quit smoking, reduce the medical illness caused by smoking.

#### Purpose/Methods

Health education groups design are: 1, to share the first experiences of tobacco used in the initial stat; 2, recognizing tobacco and withdrawal symptoms, physical and psychological stress and adaptation in quitting smoking state 3,understanding the effectiveness of tobacco substitutes; 4, smoking cessation techniques; 5, I must succeed: explore the motivation to change; 6, positive feedback. Groups around the measuring tool with cognitive questionnaire, the degree of nicotine addiction test table, carbon monoxide testing equipment.

#### Results

The participated rate average of 5.5 times per person after the groups, find a smoking cessation motivation increased from 62% to 87%, are willing to continue the use of nicotine replacement therapy; 2)the progressive reduction of alternatives, 8 and 4 people reduce the amount of nicotine in smoking cessation anchor person, a person completely disabled; 3)when there is doubt or discomfort, will propose or request assistance or appropriate response to those raised from 13% to 75%.

#### Conclusions

Patient with chronic psychiatric illness can enhance motivation to quit smoking through support health education groups, reduce tobacco harm effectively.

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## Session P1.22: Policies and programs to reduce tobacco consumption

Self-reported levels of secondhand smoke in entertainment venues 2 years after the initial implementation of the 2010 smoke-free legislation

#### PETROULIA Ioanna, GIANNOPOULOU Ekaterini, NIKOLOUTSOU Ioanna, SCHORETSANITI Sotiria, TOUNTAS Yannis

#### Introduction

It is estimated that in 2004 secondhand smoke (SHS) exposure caused 603,000 deaths worldwide. Therefore, SHS is a major contributor to the global burden of disease. Legislative actions are responsible for reducing exposure to SHS within entertainment venues. The purpose of this study was to compare the self-reported SHS levels in entertainment venues 2 years after the initial implementation of the 2010 smoke-free legislation.

#### Purpose/Methods

The national household survey Hellas Health III & V was conducted during October 2010 & January 2013 respectively and covered both urban and rural areas of the 13 geographical regions. The sample of 1,000 & 1,087 individuals respectively, aged ≥18 years old, was selected using a three stage, proportional to size sampling design and was representative of the Greek population in terms of age and residency. Interviews were conducted according to the ESOMAR code of practice.

#### Results

Although, the percentage of daily smokers was higher in 2010 (40%) comparing to 2013 (26.6%), the levels of self-reported SHS inside entertainment venues was higher in 2013. Specifically, in 2010 the level of smoke inside restaurants was reported as high 9%, low 29% and smoke-free 37% (vs 2013: 37% high, 44% low and 13% smoke-free). Moreover, inside café/bars, 16% of the respondents stated high levels of SHS, 33% reported smoke-free (2010), in comparison to 57% high, 7% smoke-free (2013).

#### Conclusions

The self-reported levels of SHS inside entertainment venues were significantly higher in 2013 compared to 2010, when the smoke-free legislation was implemented. The aforementioned findings indicate that the fragmented implementation of the smoke-free legislation in Greece may have increased the public's exposure to SHS in entertainment venues. Therefore, smoke-free legislative measures need to be consistently enforced in order to protect the population from exposure and provide a supportive environment for smokers to quit.

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## "Please quit smoking for me!" The influence of social support on smoking cessation

#### LIAO Hui-Yen, LU Hung-Yi

#### Introduction

This study attempts to investigate the influence of social support from family members on smoking cessation.

#### Purpose/Methods

48 adults living in a county at middle Taiwan and being addicted with smoking more than 1 year were recruited to participate in a social support group in 2013. Family members (such as kind and spouse) were also invited to be in the group. By way of entertainment-based drama and brain-storming activities, smokers and family members tried their best to find out the possible way which could be used to support smokers as they made a decision to quit smoking. Most importantly, family members were trained to be mentors in order to help smokers away from tobacco. This study team also called smokers weekly and encouraged them to be confident in turning down tobacco. A one-on-one qualitative interview was employed in order to investigate the effectiveness of social support for smoking cessation.

#### Results

The finding showed that participants used to smoke because "they felt bored", "smoking with others allowed them to feel not alone," "working was always accompanied with smoking" and the like. However, smokers decided to quit smoking for social support from family members. Participants who decided to quite smoking indicated that they wanted to be a good model for kids and they had to be healthy in order to take care of family members.

#### **Conclusions**

This study suggests that social support has become one of the determinants of smoking cessation. The intervention of smoking cessation program needs to consider the importance of social support.

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#### Predictors of Success for Smoking Cessation among Middle-aged and Older People

#### YEN Chi Hua, YANG Po Jen

#### Introduction

Older people who smoke expose not only themselves to the many health risks but also their family through second-hand smoke. Smoking cessation can significantly improve the health and wellbeing of older people. The purpose of this study was to investigate the predictors of successful smoking cessation among middle-aged and older population.

#### Purpose/Methods

Data were collected from January 2011 to June 2012, a total of 211 men and women aged 50 years and older participating in the smoking cessation service of a medical center in Taiwan. Smoking history, scores of Fagerström Test for Nicotine Dependence (FTND), chronic diseases, and expired-air carbon monoxide concentration were recorded by each visit. The main outcome is smoking cessation successful rate at 6 months. Chi-squared tests and logistic regression analyses were used to examine relationships between factors.

#### Results

The smoking abstinence rate was 54.7% (116/211) at 3 months and 49.5% (105/211) at 6 months. In the logistic model adjusted for age, gender and prescription drugs, it indicates that the number of physician consultations is a significant independent predictor for successful smoke cessation (OR 1.55; p=0.001). Scores of FTND, expired-air carbon monoxide concentration at baseline, having chronic disease were not associated with smoking cessation success. In contrast, higher number of cigarettes smoked (OR=0.96: p=0.022) reduced the likelihood of quitting.

#### Conclusions

Smoking cessation rate of mid-life smokers is still high. The results suggest that the number of physician consultation is the most important predictor for success smoking cessation among middle-aged and older population. Physician should provide more intense and frequent consultation services for older smokers.

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Association between Receiving Advice from Health Professionals and Quit Smoking Attempts

### CHANG Chih-Chun, HURNG Baai-Shyun, FENG Tzung-yee, CHIOU Shu-Ti

#### Introduction

Smoking is a global issue in public health. Quitting smoking is beneficial to health at any age. Provision of quit advice from health professionals is recommended and has been



demonstrated to be effective in many studies. This study aims to understand the prevalence rate of receiving quit smoking advice from health professionals among those who smoked during the past year, and to investigate the association between receiving quit advice from health professionals and smoking quit attempts.

#### Purpose/Methods

We used data from the 2012 Taiwan Adult Smoking Behavior Survey. It was a cross-sectional telephone survey on a national representative sample of 16969 adults. Respondents who smoked during the past year, defined as having smoked more than 100 cigarettes in their life and ever smoked during the past year, were included for the analysis. Chi-square test and logistic regression were applied to examine correlation between receiving advice from health professionals and quit attempts.

#### Results

Among 2611 respondents who ever smoked during the past year, 59.4% reported experience of having contact with health professionals during the past year. 55.0% of the contactors received quitting advice from the health professionals. Those who received quitting advice from health professionals had higher percentages of making quit attempts (47.0% vs 39.8%). After controlling for gender, age, education and family income, receiving quit smoking advice from health professions was associated with higher probability of making quit attempts (OR=1.51, 95% CI=1.22,1.87).

#### **Conclusions**

Smokers who received advice from health professionals were more likely to make quit smoking attempts. Despite more than half of the smokers reported the experience of having contacts with health professionals during the past year, only 55.0% of them received quitting advice. Better integration and provision of quit advice into primary health-care or routine medical visits is essential to increase quitting rates. Existing mechanisms shall be further strengthened to avoid underperformance of the health professionals in providing quitting advice.

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#### Factors Associated with Successful Smoking Cessation in Taiwan

#### CHEN Hsin-Mei, LIN Mei-Chu, WANG Hsing-Mei, YEN Chi-Hua

#### Introduction

Quitting smoking has been a worldwide public policy for many years. Predictors of achieving success in smoking cessation vary in different countries. This study aimed to explore specific factors related to successful smoking cessation in Taiwan.

#### Purpose/Methods

We analyzed 295 patients from January 2011 to December 2011 at a medical center. During smoking cessation therapies, we recorded smoking-related illness, the number of cigarettes smoked per day, scores of Fagerström Test for Nicotine Dependence (FTND), concentration of carbon monoxide in expired air (FECO), current use of medications. Our primary endpoint was success in maintaining smoke-free 6 months after initiation of each therapy. Chi-squared test and logistic regression were used to evaluate the factors that might associate with successful smoking cessation.

#### Results

The overall 6-month success rate was 48.13% (142/295). We found that certain factors had no correlation with quitting smoking, such as use of different prescription drugs varenicline vs. nicotine patch, gender, age, and particularly some smoking-related lung diseases or cancers. However, correlations with successful smoking cessation were found in the following: FTND score  $\leq$  7 (OR=1.709, p=.044), the number of cigarettes per day  $\leq$  20 (OR=1.644, p=.039), FECO  $\leq$  15 ppm(OR=1.873, p=.041), and 3-plus physician consultations (OR=2.479, p=.001).

#### **Conclusions**

The study found that the FTND score, numbers of cigarettes per day, and FECO were factors associated with the success rate of cessation. Furthermore, increased consultations with physician contributed considerably to the success of cessation. This study helped us raise a sense of urgency and provide better clinical management on heavy smokers by giving full support with more frequent consultations.

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#### The Evaluation of Therapy and Changes of Body Weight for Stopping Heavy Smokers of TYGH in Taiwan

#### HSIEH Nan-Kuang, HSU Yuan-Nian, LUA Ahai C.

#### Introduction

Heavy smoking induces cancer, cardiovascular diseases, chronic pulmonary obstruction diseases, and death. These diseases are also a great burden for current medical service system and insurance in personality and Government. So, the prevention of smoking and the smoking cessation (SC) are essential strategies for public health. Many smokers tried to quit smoking but in vain. Smokers also consider the body weight changes for SC. This study is to evaluate the therapy and changes of body weight for SC in Taiwan.

#### Purpose/Methods

First, we examined respiratory CO every adult by CO-tester. We collected the plasmas and urines of 305 participators from July

2011 to June 2013 in TYGH. It was negative when CO content below 5/ppm and cotinine showing the less than 14 ng/ml in plasma and 100 ng/ml in urine by GC-MS. We advised by symptoms comparative introduced method for smokers. We collected and analyzed data for stopping heavy smokers (SS). Data showed mean ± standard deviations percentage and 95% CI.

#### Results

It was successful case when positive before and negative after management one year. The successful rate of SS was  $39.7\pm7.3$ %, (95% CI, 25.1% to 54.3%). The rate for increasing body weight (IBW) was  $88.4\pm1.1$ %, (86.2% to 90.6%). The IBW was  $3.2\pm2.7$  Kg, (0.4 Kg to 10.58 Kg). The percentage of IBW was  $4.2\pm3.2$ %, (95% CI, 0.4% to 10.6%). We evaluated the combined therapy to be likely a better method.

#### Conclusions

The high rate of IBW was an important management for SS. The successful SC was a challenge working in public health. The combined therapy of physical activity, water drinking, and attitude of nurse were the better treatment in IBW. The symptoms comparative introduced method is a best method for SS with symptoms. The best initial and enhanced motivation to smokers for SC was data-based medicine. The high rate of IBW, withdrawal syndrome, and family factors were obstructers for SS.

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## Influence of Large-scale Tobacco Cessation Promotional Activity on the Success Rate of Smoking Cessation

#### HUANG Wei-Hsin, CHANG Betty Chia-Chen, CHAN Hsin-Lung, LIN Su-Ru

#### Introduction

Each year the Mackay Memorial Hospital in Taiwan arranges a large-scale smoking cessation promotional activity during the week of World No Tobacco Day (May 31st). The purpose of our study is to evaluate the influence of such an activity on the public's willingness to quit smoking and the success rate of smoking cessation.

#### Purpose/Methods

The activity was held from May 27th to June 1st of 2013 for a period of six days. The program included speeches given by professional doctors, individualized counseling by professional health workers, detection of carbon monoxide level for each participant, and referral to smoking cessation clinic if needed. Those who received treatment at the smoking cessation clinic were then followed at 1-month, 3-month, and 6-month for rate of smoking cessation.

#### Results

Approximately 1550 people attended the six-day event. Individualized counseling was provided to a total of 206 people, of which 22 people were referred to the smoking cessation clinic. The point success rates and continuous success rates of smoking cessation at 1-month, 3-month, 6-month were 59%, 64%, 55%, and 41%, 36%, 36%, respectively. The 3-month point success rate was higher than that found in the smoking cessation clinics during the period of January 1st to September 30th, 2013 (64% vs. 38%).

#### Conclusions

Large-scale smoking cessation promotional activity will increase the public's willingness to quit smoking. Success rate for smoking cessation was found to be higher during the period of a largescale promotional activity than in typical smoking cessation clinics

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#### An Exploratory Study of Medical Care Seeking Behavior for Smoking Cessation in Prisoners

#### LIN Ying-Li, YU Chao-Hung, LIN I-Ching

#### Introduction

Cigarette smoking is now recognized as a major cause of morbidity and mortality and results in enormous medical costs and economic loss. Cigarette smoking is among the most important modifiable risk factors for adverse health outcomes. Prison is a special and closed circumstance, and few surveys have been conducted on smoking cessation in this population. The aim of this study was to explore the medical care seeking behavior for smoking cessation in prisoners in Taiwan.

#### Purpose/Methods

We offered an out-patient service once a week for smoking cessation in the prison using medication of varenicline. The dosage of varenicline was 0.5 mg in the first week and 1 mg in the following weeks. Study participants had to meet the following criteria: (1) be 18 years or older, (2) currently smoke at least 10 cigarettes per day or Fagerström Tolerance Questionnaire ≧4 points.A total of 103 prisoners were included in this study from Jan 2013 to Nov 2013.

#### Results

The demographic data are summarized in Table1. All the participants were male with a median age of 35 years. Most of the participants smoked 20~30 cigarettes per day (30.1%), 40~50 cigarettes per day (19.4%) and 10~20 cigarettes per day (17.5%). The medical care seeking behavior for smoking cessation was summarized in Table2. Thirty-eight patients visited out-patient service for 1 time and 35 patients took medication for only 1 week.



#### Conclusions

Prisoners may have the desire to quit smoking and visit outpatient service. A large part of the participants discontinued after taking medication for 1 week, revealed the motivation of quitting smoking was not strong enough. Because the prison is a closed circumstance, prisoners are influenced by the peer group easily. An out-patient service for smoking cessation might be insufficient. Effective tobacco cessation interventions including group programs, individual counseling and nicotine replacement therapy should be integrated to help prisoners quit smoking.

#### Comments

The results highlight the need for more effective tobacco cessation interventions integrated to help prisoners quit smoking when smoking cessation intervention is designed in a prison.

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Tobacco Free Duo - An evidencebased method to reduce youth tobacco use in collaboration with parents, the public dental health sector and the community

#### **WIKLUND Ywonne**

#### Introduction

Tobacco Free Duo is a long-term intervention with the aim to reduce young people's use of tobacco. The program has been developed in the County of Västerbotten, Sweden during the last 20 years. It is has been successful and in a face of spreading nationally, today settled in 23 percent of the municipalities. A program-manager is responsible for the programme in collaboration with the community. The way the program involves adults gives an important impact in tobacco cessation.

#### Purpose/Methods

The programme is run in close co-operation with schools and actors in the municipalities. Comprehensive strategies are used, like building policies, increasing knowledge and awareness of tobacco related issues, positive reinforcement by different rewards, creating a positive non-smoking influence through social support, from friends, parents, local society and significant others. The Public Dental Health Care has an important role as basic organization carrying out the intervention, to reach all pupils and to follow up the program.

#### Results

Every year approximately 80-85 percent of pupils, age 11-12 years become members in Tobacco Free Duo in Västerbotten. Since start more than 40 000 adolescents have became members together with supportive tobacco free adults. Västerbotten have

the lowest prevalence in smoking in Sweden. Schools in 67 municipalities work with the method. The intervention is evaluated\*, the results shows a 50% decrease in youth smoking, compare to the national prevalence, as well as a significant decrease reported in adult tobacco use. \* http://urn.kb.se/resolve?urn=urn:nbn:se:umu:diva-21239

#### Conclusions

This school-based program, supported by the County Council and the Public Dental Health in co-operation with municipalities, schools and local organizations, shows that it is possible to form a long-term and sustainable intervention to prevent young people's tobacco use and support adults to quit. Factors of success are identified, as steady base-organization, long-term planned activities, well-organised co-operation with clear roles between the partners involved and in progress to keep the programme attractive for the youngsters.

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## Smoking prevention and health promotion in school

#### SBROGIÒ Luca, BELTRAME Laura, DIPIERI Martina, MICHIELETTO Federica, PETTENÒ Annarosa, RUSSO Francesca, TAMANG Elizabeth

#### Introduction

Veneto Region, with financial support from the Ministry of Health, has developed a comprehensive strategy in prevention of tobacco-related diseases for more than 20 years. According to "Passi" survey (via telephone interviews) 2012 results, Veneto has the the lowest concentration of adults smokers (23.5%); among the 18 - 24 years olds the smoking prevalence is down from 38.9% (2007) to 28.6% (2012). This is also confirmed by the HBSC survey in Veneto where the smoking prevalence goes from 21,4% (2002) to 16% (2010) among the fifteen year olds

#### Purpose/Methods

Veneto region had developed several tobacco prevention and health promotion programs for school children ranging from 5 to 18 years olds, for example "Once upon a time .. and they lived healthily and happily ever after", "Smoke Free Class Competition"," Insider" and "Sfumiamo i dubbi", based primarily on life skills training and peer education strategies in order to promote tobacco-free schools. These programs strengthen the students' social skills to act in their own school community while enhancing their education as well as their ability to work in groups.

#### Results

Each year, 21 Local Health Authorities carry out the regional programs in about 164 schools and 2413 classes. Annually about 40 health professionals and teachers are trained in peer education and life skills. In 2013 a manual on peer education development in schools called "Sfumiamo i dubbi, peer education handbook in school" was published

#### **Conclusions**

Regional comprehensive strategies and implementation of best practices are seen as being effective in reducing the number of young smokers. The future looks to media education and to peer education and life skills training as prevention strategies of other risk behaviors like consumption of alcoholic beverages and sexually transmitted diseases

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Evaluating the program of a smoking cessation support group for adolescent smokers in one senior high school in Taipei, Taiwan

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#### Introduction

Tobacco use is one of leading causes of preventable death in Taiwan. The 14.1% adolescent smoking population are senior high school students. The consequences of smoking justify a public health approach to this health problem.

#### Purpose/Methods

This study is to explore the results of the smoking cessation support group for adolescent smokers in one senior high school in Taipei, Taiwan. We provided healthy education and counseling services to senior high school students, aged from 16 to 19 years. All demographic data and smoking status at 1st, 3rd, and 6th month were traced by telephone calls.

#### Results

We collected total 24 cases (22 males and 2 females) in 2013. The results showed that gender, the smoking behavior of students' father or students' brothers and sisters are significant related to smoking behavior. The self-reported number of cigarettes smoked reduced from 9.83 to 4.74 (p-value for paired t-test <0.0001). The success rate of smoking at 1st, 3rd, and 6th month were 33.3%, 29.2%, and 29.2%, respectively. The success rates were decreased with time (p<0.05). According to logistic regression, the degree of smoking cessation attitude and smoking environment were significantly related to smoking cessation.

#### Conclusions

In conclusion, the success rates of smoking cessation were decreased with time. Further organized preventive strategies to smoking cessation are recommended in this population.

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#### Promotion on smoke-free and nonbetel nut chewing environment in Taiwan Taxi Company

#### HU Nai-Fang, HWANG Lee-Ching, CHAN Hsin-Lung, LI Shu-Zhen, CHEN Yu-Hua, CHANG Chia-Mei

#### Introduction

Taiwan Taxi Company has a high prevalence of smokers. Oral cancer screening was provided in this company, along with educational classes by a professional team in cessation for smoking and betel nut chewing. Telephone interviews were carried out at the end of the class. Rate of smoking cessation was above 35.7% one month after end of class. The average score of participants in their knowledge of smoking cessation was 86.6. We also invited Taiwan Taxi Company in pledging to be a non-betel nut chewing environment.

#### Purpose/Methods

Purpose:Through smoking cessation classes and promoting nonbetel nut chewing environment, we wish to encourage workers to quit smoking and accept regular oral cancer screening. Method: (1)Oral cancer screening and health counseling provided by a professional doctor (2)A 12-hour smoking cessation class provided by a professional team of doctors, psychologists, social workers, nutritionists, exercise trainers, respiratory therapists, and nurses, hoping participants can not only correct their behavior but also influence others as well. (3)Enforcing a nonbetel nut chewing environment.

#### Results

(1)542 people underwent oral cancer screening, with positive result in 65 people, 81% (53 of 65 people) already accepting treatment. (2)Rate of smoking cessation one month after end of class above 35.7%, and average score of participants in their knowledge of smoking cessation was 86.6. (3)Successful referral of 30 community dwellers to clinic for treatment and follow-up service, total of reduced betel-nut chewing in 3 people, cessation of betel nut chewing in 16 people, rate of betel nut chewing cessation 3 month after end of class was 84.2%. (4)Result from this program was published in Taiwan's newspaper.

#### Conclusions

This program helped the workers of Taipei Taxi Company in personal health management and health promotion. It also gave



good reputation to this company and enhanced unity among its workers.

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The Effects of Smoking Cessation
Intervention through the
Collaboration between Korea Armed
Forces and Primary Health Care
Setting

### KWON Eunjoo, KIM Hyekyeong, KIM Sungdae, CHO Han-Ik

#### Introduction

WHO estimated that tobacco-related deaths will increase to more than 8 million per year by 2030. In Korea, the male smoking rates were 46.8% in 2011. The estimated cost to the NHIS of treating diseases caused by smoking is above 1 trillion in Korea. Participating in the military service is mandatory for all men in Korea. Smoking among soldiers was related to male smoking rates. KAHP provided smoking cessation intervention for soldiers with the cooperation of Korea Armed Forces.

#### Purpose/Methods

The purpose of this study was to evaluate the effectiveness of smoking cessation intervention for soldiers in Korea. A single group pre-post test study design was conducted. The 6,508 smokers from Korean soldiers participated in the smoking cessation intervention. The program was developed based on both the transtheoretical model and life skills approaches. Changes in stages of change, pros and cons of smoking, self-efficacy, processes of change, and life skills were measured before and after the intervention.

#### Results

The cessation rates were 59.6% at 3 month follow-up. The proportion of participants in action/maintenance stage increased more than 10 times after the intervention. Pros of smoking decreased, cons of smoking, self-efficacy, process of change, life skills increased after the intervention. The predictors of smoking cessation were low level of nicotine dependency and pros of smoking, high level of self-efficacy, behavioral processes, interpersonal/communication skills. Predictors of positive stage transition included pros of smoking, self-efficacy, life skills.

#### Conclusions

Intervention through the collaboration between Korea Armed Forces and primary health care setting provided useful strategies for smoking cessation of Korean soldiers.

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Missed opportunities to develop a program of tobacco control along the birth path in Trento Province - Italy

## PIFFER Silvano, PERTILE Riccardo, PEDRON Mariangela

#### Introduction

Smoking in pregnancy is one of the most important avoidable causes of disability, mortality and adverse maternal and fetal outcomes in Western countries. "Healthy People - 2010" identified as goal standard a 2% of smoking women during pregnancy. In Trento Province (north-east of Italy) the prevalence of smoking in pregnancy decreased from a mean proportion of 11-12% in the period 1986-1995 until about 6-7% in the period 1999-2012, without showing a further recent reduction.

#### Purpose/Methods

The aims are (i) to identify smoking mothers' socio-demographic characteristics, and (ii) to assess the missed opportunities to develop a program of tobacco control along the birth path. For the first goal, multivariate logistic models were used to highlight features of smoking mothers, after controlling for potential confounding factors. All data come from the regional newborns informative flow which registers smoking behaviour in pregnancy since 1986. For the second aim, an information and operational analysis was conducted, involving jointly many healthcare professionals.

#### Results

Smoking propensity during pregnancy is significantly higher among younger mothers (<35 years, mainly <20 years), with medium-low educational level, not married, not attending antenatal classes and Italian (compared to foreigners). The decrease in smoking during pregnancy, before (period 1989-1993) and after (period 2000-2004) the first Italian smoke-free ordinance in 1995, especially concerns the most educated women, 25-39 years old and married. At present the maternity guide in Trento Province doesn't monitor this behaviour, the existing antenatal courses don't specifically address this issue, and, after delivery, there are no information or awareness raising actions for smoking mothers. There is no provincial plan involving people and health actors.

#### Conclusions

Data collection on smoking in pregnancy should not be only a monitoring in itself, but mainly used within a specific project directed especially to women with specific social and cultural characteristics.

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## Session P2.1: Improving health promoting pediatric care

## Accoglienza and Family Services in Bambino Gesù Pediatric Hospital

#### **CELESTI Lucia, RAPONI Massimiliano**

#### Introduction

Living with a disease brings out challenges and difficulties not only for the child but the family as well. When a child gets sick, the whole family suffers, and even more daunting is the time when they are forced by the complexity and rarity of the disease to move to another city or region. This requires additional clinical care and it is for this reason Bambino Gesù children's Hospital has developed a clinical department of "Accoglienza" and Family Services.

#### Purpose/Methods

The purpose of the department is providing care for the child and family for all non- clinical aspects. The fundamental goal is to make life more comfortable for parents of hospitalized children. In particular, we aim to provide long — term care to families coming from abroad and assist families who are not able to meet the cost of the most difficult economic transfer. Throughout this process of healing and care, we represent a constructive aid for medical therapy.

#### Results

It is composed by 12 different services, as the hours of the clock, working as a team Front line: information desk and call center Accommodations: 150 free rooms for families Red Carpet: for families who come from far away Guardian Angels: non-clinic tutors International Patient Service: cultural mediation services speaking 99 different languages Customer satisfaction: investigated systematically and by 'Speak up' project Counseling Social Services School Play areas 86 Parents' and Voluntary associations Facilities and activities for families

#### Conclusions

The objective of the Hospital is to make parents and young patients feel "at home". The initiative is part of the project of family-centered care. We provide constant support in assisting families and creating a protective net around them at all times. Pediatricians once claimed that "the mother is the doctor first": recover the profound truth that lies in these words, updating it with the tools that allows our time, it is our purpose.

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Network services: improving the continuity of care through the sharing

of best practices in territorial assistance dedicated to children and adolescents. Hospital nurses meet the community nurses.

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#### Introduction

Since 2000 Pediatric Hospital IRCCS "Burlo Garofolo" and ASS1 "Triestina" have designed procedures to improve the continuity of care between hospital and community health services. Nurses belonging to the four territorial units for care of children/adolescents have participated in numerous training events in classroom and on field in different hospital pediatric units to share operational protocols and ensure uniformity of action. In 2013 hospital nurses have started an in-service training in community health services, concerning home care and community care.

#### Purpose/Methods

Organized meetings of mutual knowledge of organizations and practices in care, therapy and rehabilitation. In each territorial unit for care of children/adolescents training program to learn about activities of territorial services (involved 3 nurses and one head nurse of hospital emergency unit, regional head nurse for continuity of care). monitoring and evaluation of shared complex cases, which would be likely to incur in hospital admittance either in emergency or acute situations, by getting to know their family and environmental situation.

#### Results

Sharing of procedures for the continuity of care in complex home care situations. Improvement in communication and interchange of good practices among nurses involved in training program. Production of useful means to ease mutual communication between hospital, territorial care services and families, in order to obtain effectiveness, efficiency and good care by optimizing the available resources.

#### Conclusions

The interchange among nurses has allowed improvement and motivation in their daily activities, through sharing of mutual strengths and weaknesses and agreed definition of "integrated care" Families of young patients involved in training course have appreciated the opportunity of being followed in shared care programs. Furthermore, hospital nurses had the opportunity to know different aspects of territorial care activities, although not directly connected with continuity of care, but potentially important when a personalized care plan is designed.

#### **Comments**

Due to its success, this training program will be repeated during 2014 and it will involve head nurses of different units of Pediatric Hospital IRCCS "Burlo Garofolo".



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Pain Assessment in children with severe cognitive and neuromotor impairments, the Reggio Emilia experience.

#### CERVI Monica, MASTRANGELO Stefano, SACCANI Angela, AMARRI Sergio, CHIARENZA Antonio

#### Introduction

Some studies have shown that children with severe cognitive and neuromotor impairments experience more pain (frequency, intensity, etc.) than children without mental retardation. Pain measurement in infants/children is very difficult since they do not have the verbal ability and conceptual comprehension of adults. The identification of attitudes that can be connected with painful symptoms in infants/children with severe cognitive and neuromotor impairments requires an integrated and multidisciplinary approach and the systematic use of validated and shared assessment tools, also considering the fact that in most cases observed the families are of foreign origin.

#### Purpose/Methods

Defining a pain assessment process in infants/children with severe cognitive and neuromotor impairments enables the paediatrician, nurse, specialist physicians and parents/caregivers to:

- Understand whether they perceive pain and identify the cause;
- Create the conditions for appropriate treatment (pharmacological, non-pharmacological);
- Reduce the number of cases resorting to hospitalisation;
- Involve the parents/caregivers. The definition of a process for taking charge of the child and family with:
- Illustration of the project;
- Involvement of the cultural linguistic mediator;
- Structured interview for data collection;
- Observation of the physiological parameters;
- Summary and sharing of the results with the team and the family.

#### Results

A procedure has been defined describing the process and dedicated tools. In all cases it was possible to define whether the child perceived pain and under which circumstances. The process led to the identification of the cause. It allowed: - The definition of pain treatment for all children perceiving pain; - The efficacy of the treatment to be assessed; -The parents/caregivers to be involved, providing an active contribution to the process, reducing their sense of impotency and inadequacy; - The awareness of the operators to be increased on the subject of pain in children with severe cognitive and neuromotor impairments.

#### Conclusions

The pain assessment process for children with severe cognitive and neuromotor impairments requires: - A complex and multidisciplinary approach - An assessment of the cultural context and family dynamics. It is fundamental to involve the family, making the members an active and proactive part in the appearance of signals that can be connected with pain perception and to contribute to a reduction in their sensation of impotence when faced with complaints/"agonising" behaviour.

#### Comments

When pain is a permanent part of life, it becomes unacceptable. This is even more accentuated when talking about infants/children. There are children who cannot heal, but there are no children that cannot be cured: every child has the right to the maximum attention and care with respect to their overall existence as a person. This is also valid for the family, who often experience the same emotions, anxieties and fears as the sick child.

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A Bridge between an Intense Care
Unit and home in The Pediatric
Respiratory Care for disability in
Taipei City: An official Pediatric
Respiratory Care Ward (PRCW)

### HUANG Cheng-Hsien, YANG Win-Nie, CHANG Sun-Yran

#### Introduction

The PRCW opened in the Yangming branch in December 2011. This is the only official PRCW in Taiwan. This special unit will provide the best care of children with prolonged ventilator support and their development of mental and physical health.

#### Purpose/Methods

The PRCW open in December 2011. We have twelve beds for availble. Our stuffs include pediatrian, nurses, respiratory therapist, rehabilitation specialists, social workers and dietitians. The eligable criteria for admission include age younger than 18 years old, prolonged ventilator support ( using respiratory support last for more than 6 hours per days) and no infectious diseases. Finanical support of ward fee is also given after individualized evaluation.

#### Results

Until 2013/11/30, there were totally 31 episodes of hospitalization in 23 patients. The most frequent diagnoses in oreder includes hypoxic-ischemic encephalopathy, mitochondrial diseases, and congenital multiple anomaly. the most common

origins of our patients are intense care units of the medical centers(73.9%). There were 2 patients admitted for the respite care. The outcomes of our patients are as follows: stays in our PRCW:7, went home: 7, transferred to the medical centers:5; death: 4.

#### Conclusions

Our PRCW can enhance the utility of intense care unit and also lessen the economic and mental loads of their families. This also reflected in the policies of the department of health of Taipei city government, to help those who need help, to respect the life of every citizen and to take care of the minorities.

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Six-year Follow-up of Hippotherapy on Gross Motor Function in a Child with Hypotonic Quadriplegic Cerebral Palsy

#### YANG Chen-Chia, CHAN Shu-Ya, LO Hong-Ji, HSIEH Yueh-Ling

#### Introduction

Hippotherapy has been shown to produce beneficial effects by improving the motor function in children with spastic cerebral palsy (CP). However, its long-term therapeutic effects for children with hypotonic CP have not been thoroughly examined.

#### Purpose/Methods

The purpose of this report is to document the 6-year longitudinal changes of gross motor function in a 5-year-old girl with generalized hypotonic CP and global delay in development treated with a long-term hippotherapy regimen. She received a 15-minute intervention twice a week for six years with special treatment positions, sitting backwards, prone propped and sitting forwards on horseback. Gross Motor Function Measure (GMFM-88) and certain functional GMFM items evaluated on the horseback (GMFM-h) were followed up every 3 months.

#### Results

There was sustained improvement in gross motor function every year after hippotherapy. Her GMFM scores increased in dimensions A (from 21 to 42) and B (from 0 to 21) and the increment percentage of total GMFM-h scores also achieved 80% after 6-year hippotherapy.

#### **Conclusions**

According to the case report of this 6-year follow-up, we suggest that hippotherapy might enhance and maintain the gross motor performance and functional ability in quadriplegic hypotonic CP.

#### Comments

Hippotherapy may provide an alternative treatment strategy that utilizes horse movement as the primary part of an exercise intervention for CP individuals with hypotonia and a variety of disabilities.

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# The Immediate Influences of Hippotherapy on Dynamic Sitting Balance in Para-equestrian Athletes With Cerebral Palsy

#### YANG Chen-Chia, HSIEH Yueh-Ling

#### Introduction

Hippotherapy is an equine activity that uses the horse to assist with various types of therapy, either physical, occupational or speech language therapy. Hippotherapy collaborated with Para equestrian training program can further advance equestrian skills of Para riders. However, its therapeutic effects on balance control in sitting for Para-equestrian athletes with cerebral palsy (CP) have not been thoroughly examined.

#### Purpose/Methods

The study aimed to examine the immediate changes of sitting balance in Para-equestrian riders after a session of hippotherapy. Para-equestrian riders (male, ranged from 12-18 years old) with spastic diplegic CP (GMFCS Level III) who experienced in International Para-equestrian competitions were recruited for assessing their sitting balance. The modified functional reach tests obtained reach distances and corresponding center of pressure (COP) excursion of forward, rightward, and leftward reach before and after 30-minute hippotherapy were examined. Reach distance was obtained by tape measure and COP excursion was measured using Zebris FDM-S system.

#### Results

After a session of hippotherapy, all riders revealed an increase in the value of reach distance in all directions. Average increase in distances for forward, rightward, and leftward reach were 9.1, 1.2, and 7.1 mm. The change of distance for forward and leftward reach was considered as moderate to large (effect size = 0.75 and 0.96). Moreover, increase in the value of COP excursions was observed only in three riders for forward (8.1 mm of average increase) and leftward reach (12.1 mm of average increase) and in all for rightward reach (14.8 mm of average increase). However, the changes in COP excursions for all directions were considered as small (effect size ranged from 0.23 to 0.36). Nevertheless, inspection of the COP time series revealed an improved smoothness of trajectories and curve shape immediately after hippotherapy.

#### Conclusions



The findings were preliminary and suggested that para equestrian riders with CP might exhibit improvement in dynamic sitting balance after a session of hippotherapy.

#### Comments

Hippotherapy strengthening on abdomen-back muscles seems to provide an adjuvant training programs for improving sitting balance in para-equestrian riders with CP.

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## Promotion and evaluation of the respect for the child's rights in hospital

#### TANGOLO Domenico, FORNERO Giulio, FALCO Silvio, CATINO Lucia, CERRATO Iole, CERUTTI Franco, CITTARO Wilma, CORSI Daniela, FRANCESIA Nadia, NEGRI Caterina, SACCO Marisa, DE INTINIS Giuseppe

#### Introduction

Compliance with the Charter of the rights of the child hospitalized is one of the most significant commitments in the field of health promotion; it also helps to reinforce a cultural model in which the caring precedes the diagnosis and the child's care. The hospital must take account of their needs, their affections to their emotions. To make concrete these statements, we must move from state to assess how these rights and how they are implemented in practice.

#### Purpose/Methods

A working group composed of medical personnel working in "Regina Margherita" Children's Hospital of Turin (OIRM) and representatives of Schools and Voluntary Associations has produced a manual to evaluate the application of the Charter of Rights of the child hospitalized composed of 40 items graded on four incremental levels to guide quality improvement. Health professionals, volunteers and school teachers have been trained as evaluators. Groups composed of three auditors visits the departments, those assessed themselves using the same manual.

#### Results

Six evaluation visits have been conducted; they allowed to verify compliance with the rights of children hospitalized; it produced satisfactory results especially from the point of view of the involvement of professionals and volunteers. The work program plans to conduct at least two visits per month to conclude the evaluation of all departments of OIRM by 2014. We have a system to promote quality of children care that is based on

principles of shared evaluation and development of improvement actions.

#### Conclusions

The project shouldn't be confined to a single reality, even if relevant of OIRM, because it has its own natural development on a regional basis in the context of health promotion. The HPH network in Piedmont was involved in these aims and in related activities, above all specific training activities will be planned so that there will be a greater number of evaluators involved and a larger assessment to all the locations of hospitalization of pediatric patients in the region.

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"The Chibicco Theatre" in Oizumi Health Coop Hospital for ten years.

#### FUJITA Akiko, KURIHARA Yumiko, HAYASHI Setsuko, THE CHIBICCO THEATRE An executive committee of, SAITOH Fumihiro, NEGISHI Kyota

#### Introduction

We have held an event as "The Chibicco (children's) Theatre" since 2002. Aim of this event is to create and promote children's healthy mind. We expect children to feel that a hospital is a comfortable and delightful place and that all medical staffs like doctors and nurses are friendly. To this purpose, community members and medical staffs cooperated each other and planned these activities.

#### Purpose/Methods

When we held the first time theatre ten years ago, we read books for children in the out-patient clinic of the hospital by community volunteers of our co-op. Recently we have puppet theatre that is made by mothers, and teach playing the violin by medical staffs. We held these events twice a year, and now we planned 23 times.

#### Results

40 participants of children, parents, and volunteers joined to the first time theatre. Recently 90 persons are getting together. Community members and medical staffs cooperate and plan events. This deepens the bond and increases consciousness that Oizumi Health Cooperative Hospital is "Our" hospital. As a result of planning regularly, participated parents came to have a stronger sense of community. Some of the children became to be interested in music, and a few of them came to play the violin.

#### Conclusions

In modern society, there are thin human relations like nuclear family, single-person households and super-aging society. We

have a slogan: "Let's connect our mind by encounter, contact, assist, and cooperation" We think connections between people are important. We keenly feel the need of new relations and bonds within the community. These lead us to public safety, peace of mind and well-being. In this mean, "The Chibicco theatre" plays a very important role.

#### Comments

Non medical community staffs report this study.

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## Use play therapy to reduce the children's stress of intravenous injection

### CHUANG Jia-Chi, JIANG Shu-Jiuan, CHUANG Yu-Ching

#### Introduction

Pressure is all around when a child is sick and stays in the hospital. Surrounded by unfamiliar people, objects, environment and various invasive treatments, children react with disobeying actions. The fiercer the injection process is, the more difficult to conduct the injection and lower the chance of successful injection. Using Play therapy room, story-telling and gaming to accustom child patients with unfamiliar environment, is proved to lower hospitalized children's anxiety and fear during injection.

#### Purpose/Methods

Decorating the environment with warm colors, forming atmosphere of story house, to bring child patients into role playing Play Therapy by story-telling. Turning on auxiliary treating tools and star light projector to fill the environment with lovely pictures to distract children's attention.

#### Results

The occupancy rate of Pediatrics word is 62%, hospitalized patient requiring intravenous injection drip is 97%, preparation time of intravenous injection 3 minutes, average intravenous injection duration 15 minutes, success retaining is 60%. After using Play Therapy, the preparation time of intravenous injection extend to 20 minutes, average intravenous injection duration 5 minutes, and success retaining is 92%.

#### **Conclusions**

When children enter playroom, uses the role-playing to make children patient feel more secure to reduce anxiety and fear. Lighting, music and images distract child patients' attention when conducting intravenous injection at the same time, which balances their physical and mental status. Though longer preparation time, the shortened injection time and obvious increase of injection success rate, effectively minimize child

patients' fear. This helps make a good nurse-patient relationship and enabling the family to trust the medical team .

#### Comments

Even though longer time and labor preparation, Play Therapy remains necessary to ease pressure of hospitalized children. To provide friendly treating environment takes nursing and medical teams cooperative effort. Ideal treating environment provides child patients with thoughts and feeling of mental growth. In hoping to build friendly medical environment, and furthermore provide positive hospitalization experience to child patients.

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## Promote family relations with activities in hospital's children wards

#### CHIU-JUNG Lai, MEI-HUI Chen

#### Introduction

The hospital's children wards started presenting plays and playing games since July 2006. The plays and games incorporated Still Thoughts Aphorism teaching methods and the content teaches about family relations. The child patients and their parents can ease their tension through these activities. We hope to create a warm environment and a homelike atmosphere through these activities.

#### Purpose/Methods

1.Participants: Northern Taiwan's elementary school, until university teachers who volunteer with Tzu Chi as well as community volunteers at different schools. 2.Training: Participants received more than two years of Tzu Chi's training. They hold monthly meetings to design teaching contents. 3.Number of participants: About 15-20 people join each session. Doctors, nurses and volunteers go to wards to invite people to join weekly activities which last for about 60 minutes. 4.Content:Stories, games, and plays are designed based on the teachings in Still Thoughts Aphorisms.

#### Results

When the children said thank you to their parents or grandparents and hug them, many parents had tears in their eyes. The activities received 95.1% high satisfaction rating. The average satisfaction rate is between 90%-94%. In 2006, 27 activities were held. Between 2007-2013, an average of 45 activities were held. High school principal has incorporated Still Thoughts Aphorisms into the curriculum since participating in the activity.

#### Conclusions

Activity evaluation: Participants fill out forms and the results are analyzed. Activity Benefits: Volunteers help child patients and their parents ease their pressure through these activities that teach people about filial piety and gratitude. We also want to



show Tzu Chi's humanistic culture at the hospital. The educational activities ease the child patient's tension and they can learn about principles in daily life.

#### Comments

Hospital not only provides medical care but also guards the mental health of children and their parents. Through games and plays, children can be creative and enjoy socializing. The children's medical team members smile and use care to build a loving environment and warm medical facility. All the efforts help the hospital facilitate people's health.

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## Application of a trans-disciplinary model in preschoolers with ASD and motor developmental delay

### LIN Ying-Hui, YANG Meng-Ju, LIN Chi-Chin, HUANG Po-Tsang

#### Introduction

The Early Intervention Center of National Taiwan University Hospital has devoted to the health promotion for preschoolers. Preschoolers with ASD symptoms are received services here, provided by a team consisting of attending physicians, physical therapists, occupational therapists, speech language pathologists, clinical psychologists, and social workers. The physical therapist and clinical psychologist attempted to team up to plan and execute the group therapy. We hypothesized that the transdisciplinary model different from traditional model might be more effective.

#### Purpose/Methods

Two children completed comprehensive evaluation and were diagnosed as ASD and motor development delay were included. The 20-month-old child A received physical therapy and occupational therapy separately once a week since 7-month old. The 25-month-old child B never received any rehabilitation programs before. The two professionals decided the collective goals and execute the treatment concurrently 45-minute session per week for 8 months. The Comprehensive Developmental Inventory for Infants and Toddlers was used to measure the treatment effect.

#### Results

After receiving the treatment, both children got improvements in their abilities. The average changes of developmental age were 4 months and 6.5 months in gross motor and social ability, respectively. Furthermore, the child A's progress rate in the social ability during 20 to 27-month period is greater than that during 7 to 20-month period. The difference demonstrates that the transdisciplinary model might be not only effective but also efficient.

#### Conclusions

Application of a trans-disciplinary model indeed meets the needs of ASD children with motor developmental delay. It is really a more effective and efficient intervention model for patients. In addition, different professionals could keep the connection, share the viewpoint, and promote knowledge and skill exchange through team work. The therapeutic need of every patient is multiple-dimensional, and a trans-disciplinary model is more ecologically valid. We hope it will be well practiced in the early intervention team for different therapeutic needs.

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## Session P2.2: Supporting child and adolescent health in everyday life contexts

Networking and formal alliances for health promotion of youth population in contexts of life: the agreement between Municipality and Healthcare Services Agency

#### BICEGO Livia, SANSON Sara, CROCI Eleonora, BRECEL Antonella, GRIM Antonella, MAGGIORE Adele

#### Introduction

In a time of socio-economic crisis and spending review, the implementation of joint measures of health promotion, resource sharing and formal creation of an inter-institutional system become crucial to optimize the activities, ensuring the sustainability, reproducibility and dissemination throughout territory and to the entire population, in particular among young people.

#### Purpose/Methods

The Healthcare Agency and the Municipality of Trieste (Education, University and Research Area) signed a three-year agreement for establishment of synergistic measures, based on the needs expressed by young community. The aim is developing integration of health and social functions as well as promoting the health of young people through dissemination of a culture of healthy eating, regular practice of physical activity, acquisition of life skills and prevention of risk behaviors.

#### Results

□ mutual support and establishment of permanent networkoriented relationship and cooperation between the two

#### **Conclusions**

Projects and initiatives: 

| Vegetable gardens at schools | Cloth diapers in 0-3 years educational services | Environmental Education | Early detection of specific learning disabilities | Management of children with disease in schools and educational settings | Charon Group against violence to minors and pedophilia | Breastfeeding, complementary feeding and nutritional education | Laboratories of radio journalism | Sports in municipal recreation centers | Prevention of risk behaviors (consumption of psychoactive substances, conscious use of new information technologies, gambling, preventing sexually transmitted diseases)

#### Comments

The collaboration of stakeholders and the creation of networks and stable and recognized systems (HPH standard 1 and 5) allows you to better analyze health needs of population and to tailor targeted and effective interventions based on real needs, with optimization of resources. The Framework Agreement is a formal document of shared programming that integrates health and social institutional programming of National Health Service.

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# The Effects of Project of Health Promotion Intervention on Physiological Indices and Life Quality of Obese Children

#### CHIANG Mei-Chih, CHEN Fang-I, CHEN Mei-Tsu

#### Introduction

Childhood obesity is national epidemic in recent years. The prevalence of childhood obesity in Taiwan within a decade has reached to 20%~25% up from 2.4%~4.4%, indicating that, averagely, one of five children has obese problem. It is 80% chance that being obese in childhood is still obese in adulthood. Furthermore, obesity easily causes cardiovascular diseases, hypertension, and diabetes mellitus type 2. Therefore, childhood obesity has become a health issue worthy of attention and actively involving in.

#### Purpose/Methods

This study applied experimental design to assess the effects of the intervention. 27 over-weighed and obese children were the subjects whose age average was 11.3±1.514 years old and BMI was 25.65±1.195 kg/m2. On one hand, 13 out of the subjects were in the treatment group, which received diet education and exercises for 8 weeks. On the other hand, 14 in the control group had no treatment. The major and positive changes we expected after the intervention were weight, BMI, girth, and body fat. Plus, the secondary ones were physical activity, diet behavior, and life quality.

#### Results

The result showed that the physiological indices of the treatment group were significantly improved than was the control group. BMI and the girth of the 13 subjects had comparable decrease(p<.05). The factors of body fat, weight, and waist-hip ratio reached significant difference between the two groups (p<.05); The life quality of the treatment group, also, was better than the control group. The results might prove the intervention is workable and effective.

#### **Conclusions**

The prevention of childhood obesity should comprehensively take into consideration of lifestyle and be supported holistically by environment, family, and school. Eating greatly affects the body fat composition and metabolism. Therefore, teaching children to have good diet behavior, health concept, and sustained weight might strengthen self-efficacy of children and promote lifestyle and health in a long-term way.

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Exploring the effect of short-term semi-structured cognitive-behavioral group therapy on interpersonal learning and self-efficacy with adolescents

### HUANG Po-Tsang, TSENG Chang-Chang, YANG Yu-Ting, HSIEH Ya-Chi

#### Introduction

Cognitive-behavioral group therapy (CBGT) has the advantages of demonstrating the relationship between thoughts and feelings through observations of group members, and group members can also be used as co-therapists (Morrison, 2001). Moreover, group therapy may be more effective with adolescents (Liu et al., 2008). The goal of this study is to explore the effectiveness of short-term CBGT with adolescents, emphasizing on stress-coping in interpersonal context. Relaxation training is also incorporated into the therapy to enhance stress management and emotional regulation.

Purpose/Methods



The course of therapy consists of 4 semi-structured sessions on a weekly basis. Before each session, scenarios of role-play were generated through individual assessment that reflects real-life problems of members. The members were expected to gain awareness of their feelings and thoughts, and to generate alternative coping behavior throughout role-play. Each session ended with relaxation exercises. Before and after each intervention, questionnaires were used to measure the stress appraisal, parent-child communication, and self-efficacy of the participants.

# Results

8 participants (M:F=5:3, age ranges from 13-18) completed the therapy. 87.5% of participants reported to have more sense of control on how to relax themselves. 50% of participants reported to have more awareness of the relationship between emotion, cognition and behavior, and better communication experience with their parents. 37.5% of participants reported that they like themselves more, have lower frequency of bad mood, and their self-efficacy in regulating emotions is enhanced. 25% of the participants reported less feeling of stress.

# Conclusions

Short-term CBGT targeting on stress-coping in interpersonal context may be helpful in enhancing adolescents' self-efficacy, emotional regulation, and interpersonal communication. However, appraisal of stress, which may be more related to personality traits and cognitive styles, is less likely to be changed significantly for such brief intervention. Short-term CBGT targeting on interpersonal learning may be not only a cost-beneficial way to deliver psychological health services, but also an effective approach to enhance emotional regulation and self-efficacy of adolescents.

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# The Impact Effect of 3C Products on Children's Mental and Physical Health.

# LIU Yi-Pei

# Introduction

In 2012, Taiwanese Child Welfare League Foundation published that the time of using the 3C products (Computer, Communication, Consumer electronics) is over one hour per day in 30% of Taiwanese children. This year, this foundation reported that near 40% of Taiwanese children use smartphone and this percentage grows twice than two years ago. Thus, we should pay attention to the impact effect of 3C products on children's mental and physical health.

# Purpose/Methods

With the coming of the technological era, more and more children use 3C products every year. To detect the impact effect of 3C products on children's mental and physical health, we collected on-line associated literature to do a systemic brief review.

### Results

These studies found that the more screen time the children have, they may have higher risk of eyesight degeneration, cardiovascular disease and type 2 DM. Besides, additional one hour of screen time per day would increase 9% in attention problem. Thus, the excessive screen time would be a serious obstacle to attention, psychosocial health, brain and cognitive development in children.

# Conclusions

In this era of busy work, parent-child interaction time is very precious for every family. In other words, if we lost this time owing to excessive screen time in children, we would miss the only once process of children growth. More seriously, it may even affect the mental and physical development in children. Therefore, we should give the child an appropriate time to use 3C products.

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# MalAb experts' group against minor mistreatment and abuse

# BICEGO Livia, GERIN Daniela, GIACHIN Mariagrazia, IURMAN Valentina, BARBETTA Licia

# Introduction

Experts' group MalAb was founded in Trieste in 1998 to contrast violence and abuse against minors. It involves part-time professionals from A.S.S. no. 1 "Triestina", Trieste's municipality and Children's Hospital (two social workers, three psychologists/psychotherapists, and one educator; with additional specialists available on request: pediatricians, gynecologists, neuropsychiatrists), specifically trained by national and international experts. Its seat in via Giusti is equipped with one-way mirrored walls for the observation and video-recording of children and their families for medical and legal purposes.

# Purpose/Methods

MalAb disseminates knowledge concerning child abuse, its prevention and early detection, through targeted educational initiatives; safeguards minor victims and promotes full cooperation and alignment between services involved in assistance and legal procedures, in order to avoid any cause of further stress for the victim; provides ancillary services, such as counselling for institutions and other relevant bodies, information and training courses, care and assistance for minor

victims of violence, and data collection on phenomena involving sexual abuse and mistreatment.

### Results

In the year 2012, 94 cases (31 counselling interventions and 63 cases taken in full charge) were successfully handled, involving a total of 67 minors and 27 parents. Counselling interventions required at times multiple meetings and were eventually taken in full charge by the Group. After attending targeted training, MalAb operators currently provide psychotherapeutic assistance to abusing minors as well.

# **Conclusions**

Action analysis referred to the past 12 months highlighted the need for specialized experts readily available in situ in order to tackle such delicate and complex situations. Victims (minors or women) have difficulty denouncing mistreatment and sexual abuse for various reasons,e.g. fear of further violence perpetrated by the abuser. Even when a full account is provided, there may be a delay in the intervention of social, education and healthcare services, or other relevant institutions, such as law enforcement and schools.

## Comments

Violence perpetrated against children is the worst kind of violence: it affects the entire society and it frequently takes place behind closed doors, apart from few, isolated cases reported by the media. Too many children and teenagers live in fear and isolation, unable to ask for help; they are victims of adults, who either directly perpetrate violence, or are too afraid to listen, see and act to help them.

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Recognize and manage child maltreatment: methodological manual and care pathway.

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# Introduction

Even if abuse against children is a serious, pervasive social problem, there is an under-reporting by operators (educators, teachers, pediatricians, nurses, coaches, entertainers, priests, etc.) who contact children, due to the lack either of ability to recognize the early signs of ill-treatment and nor of awareness about methods and abilities to intervene in a preventive,not punitive way. A national document that offers a concise overview

of the elements necessary for early detection does not exist actually.

# Purpose/Methods

Given the importance of the problem in Piedmont, HPH Network has set up a working group composed of medical personnel and representatives of other professions (teachers, social workers, lawyers) to share the construction of a document that identifies aspects and clinical symptoms to put the diagnostic suspicion of abuse, defines the organizational elements to manage the path of taking charge of an abused child, proposes a "package" training/information to raise awareness of workers and the general public on health promotion.

# Results

It was produced a "manual" of clinical and social indicators of suspected child maltreatment for doctors and nurses who "meet" children in health care for several reasons: periodic visit, access to the emergency room, hospitalization, outpatient visit. It is well known that abused children often come to the observation of sanitary reasons for non-specific and therefore it is difficult to identify and require a thorough differential diagnosis to exclude organic causes.

# Conclusions

The manual should play an important role in boosting the observation of health and put the suspected child maltreatment among the causes of the events in symptoms like those of organic. Of course, like all systems of complex indicators do not presume to be able in intercepting all cases of abuse but bring out a large proportion of the iceberg which, for now, will show only the most severe cases, continuous and causing injury, serious or very serious.

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Reduce the risk of domestic accidents in children in Health Services n°2 "Isontina"

# MILOCCO Cristina, CALLIGARIS Maria Chiara, CORBATTO Elisabetta, COMPASSI Susanna, DALLAN Mariella, GIORNELLI Roberta

# Introduction

It is commonly said that "the child lives in an adult world, designed by adults for adults." In industrialized countries the Domestic Injuries (poisoning, burns, falls, etc.) are among the leading causes of mortality and morbidity in preschool children. Parents need to be aware of the risks to which children are exposed in their homes. To implement the skills of parents, already during pregnancy, we have developed a project for



primary prevention through community involvement and educational services

# Purpose/Methods

The overall objective concerns the safety culture in the parents of children 0-4 years old and the monitoring of burns and poisonings treated in Emergency Departments and in Pediatrics of Health Services. It 'was set up a permanent working group multidisciplinary. We have achieved an information campaign to standardize the information in the healthcare setting. We considered that is essential to identify the stakeholders in the area ready to share the culture of safety in life and in school setting

# Results

We produced booklets and posters to share safety home culture; we identified key points to evaluate the impact of the message (birth preparation courses, information for fathers after birth, vaccination services and local pediatricians). In alliance with stakeholders we shot video messages for a website dedicated to the population of new parents and baby-sitters. An official document establishes the network of stakeolders which includes public and private educational services for children, traders furnishings and social services operators. We organized workshops to share the informative material.

# **Conclusions**

The information campaign on safety at home has reached 90% of those born in the province of Gorizia, and was much appreciated by the parents. Booklets and videos are available on -line ( www.conciliatempo.it). We are planning an involvement of traders to sell low-cost kit for home security. The materials were distributed in the pediatric surgeries but it is hard to build a stream of communication to link the data of the near-miss incidents and of the self-cared injuries.

# Comments

We need to implement accessibility to information/education by health literacy and to improve the data collection including even small incidents and situations of near miss. In order to spread the message of safety at home, the global economic crisis oblige us to use informations on line at the expense of paper depliants. We are going to go over this problem promoting alliances with stakeolders to design interventions shared and common easy languages in order to amplify the message.

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The Investigation of the Current
Status of Drug Abuse Profile among
Taiwanese Adolescents

YUAN Jia-Yu, CHANG Mei-Chi, LEE Gin-Ying

# Introduction

The report of 2012 survey indicated that the prevalence of drug abuse have decreased in all age groups in Taiwan, excepting the youths aged 15-24 years. A higher prevalence of drug abuse was found in the adolescents with depression, which consequently worsen their depression and increased the levels of suicidal ideation and behavior. These youths had a higher likelihood to be become gang members and emerge deviant behaviors such as theft and consequent physical, psychological, and social problems.

# Purpose/Methods

The study aimed to investigate the current status of drug abuse and the impact of demograpic variables (including their basic characteristics, parents, family members, and peers) contributed to drug abuse and associated negative health behaviors and deviant behaviors in these youths. A total of 375 young people aged 12-17 years were included for analysis in the present study. The National Survey on Health and Drug Abuse Questionnaire was used as the survey instrument.

### Results

Age, school attendance, grades, living circumstance, drinking, and betel chewing status significantly contributed to differences in drug abuse in youths. Boys had a higher prevalence of drug abuse than girls. The youths with higher age or grade had higher frequencies of smoking, drinking, and betel chewing. Deviant behaviors were associated with age and school attendance and correlated with the status of health behaviors of parents and friends. Drug abuse risk (OR=32.598) was significantly increased in the youths having drug-using peers.

# Conclusions

Adolescence is a stage of physical and psychological changes. It is also the critical period of cultivating health-promoting lifestyle. However, deviant behaviors not only cause their health and psychological harms, but also caused problems for the sociality. It is suggested to implement interventions of health education dedicated to increase the knowledge about health behaviors, to reduce the occurrence of psychological illness, suicide and other social events thereby preventing disease, maintaining health and promoting health.

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Adolescents: from school to street.
The prevention of sexually
transmitted diseases (2012-2013)

BICEGO Livia, CONTINO Antonina, BALESTRA Roberta, MASALA Franca, SOLA Vittoria Maria, RAVELLI Renata, COLLI Claudia, MIELE Michela, PALLAVER Silvia

### Introduction

During adolescence sexually transmitted diseases (STDs) (genital-herpes, Trichomonas vaginalis, Chlamydia trachomatis, papillomavirus, HIV), particularly in young women under 25 years, are increasing. In Italy condom-use and prevention programs are little. Early initiation of sexual activity and being a female are predisposing factors; these factors expose to the risk of carcinogenicity and infertility. Studies on the sample revealed that only 35% of boys always use condoms, the rest never or occasionally. Only 1/5 youngsters has received information at school, 1/3 from friends.

# Purpose/Methods

The project is dedicated to adolescents/young adults (16-25 yr) and setteld at school (Afrodite), in places of entertainment ("Overnight"), in health services (Spazio Giovani), during December 1 (Hiv World Prevention Day). A trained adolescents group work with youngsters at the side of experts ("peer education"). Content and language of messages are discussed together with adolescents (focus groups); information and prevention material (condoms, brochures), outdoor camper for HIV testing and WEB box spaces are available. Individual and group counseling are held.

### Results

2012:24 peer-educator trained 2013:38 peer-educator trained Regional information campaign with youth association (7 leaflets on the main STDs) Research on lifestyles and risks in youngsters (sample of 300 young people interviewed in night clubs) Managment of our Overnight FB profile Condom free distribution Free and anonymous HIV testing offered on 1st December on outdoor camper 1000 contacts per year recorded in "Overnight" evenings 1800 adolescents per year recorded "Spazio Giovani" A video, which involved 350 adolescents, produced by the youngsters

# Conclusions

Considered the concerning epidemiological data, the ASS1 has organized health promotion activities on territory to intercept youngsters at risk, detect early and cure STDs diseases. Innovative methodologies were used: peer education, proactivity, sinergy with urban partners and collaboration with youth organizations, has also helped to make young people aware of services dedicated to them. The youngsters have shown interest and availability for these issues, so that they theselves produced information material targeted to their peers (video, STDs-brochures, regional-campain).

# Comments

These issues are often addressed little and improperly, without coherence-continuity. Adolescents, for their physiological propensity for experimentation and risk, represent a vulnerable population for STDs. The information level is okay but condom use is still sporadic. We tested the importance of an intervention both at school and in places where young people gather, in a coordinated manner, involving significant partner for the target as a popular youth organization very involved in the organization of recreational and cultural events.

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# Over-the-counter cough and cold medicine misuse is an emerging problem among pediatric population

# LIU Yi-Jiun

### Introduction

The child with a fever, runny nose, and a seemingly constant cough are common presenting complaints to pediatricians' offices. According to CDC statistics , young children suffer from an average of six to eight colds per year . When a child has a cold, parents may depend on home remedies and then buy over-the-counter drugs for self-treatment , that will bring about many problems in drug use. So that we should pay attention to this problem

# Purpose/Methods

By reviewing the literature, to understand in the use of OTC (over-the –counter) medicines for children that has many problems. And using the data to alert parents to use over-the-counter medicines to treat kids

# Results

In the United States, the Food and Drug Administration states that OTC cough and cold products such as decongestants, expectorants, antihistamines, and cough suppressants should not be used in children under 2 years old. These products are unsafe and do not work in babies and toddlers. More importantly, they may be misused and can cause serious and potentially lifethreatening side effects

# **Conclusions**

It is important to take OTC medicines correctly, and be careful when giving them to children. More medicine does not necessarily mean better. What over-the-counter medicines can you safely give your child for a fever, cough, or cold? With all the changes in government recommendations and product labeling over the past few years, you almost need a pharmacy degree to know for sure.

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Is it safe that children eat medicines containing aspartame?

# LIU Yi-Jiun



# Introduction

The safety of aspartame has been the subject of several political and medical controversies, congressional hearings and Internet hoaxes since its initial approval for use in food products by the U.S. Food and Drug Administration (FDA) in 1981. Researchers and doctors studying the adverse effects of aspartame have stated that certain chronic illnesses can be triggered or worsened by using aspartame. Despite its reputation, many drug manufacturers continue to use aspartame in their formulations.

Purpose/Methods

Reviewing all available scientific research on aspartame. It included both animal and human studies . In order to get alerts, we through the literature to understand the dangers of aspartame

# **Results**

Headache is a commonly reported adverse effect with aspartame. Neuropsychiatric side effects have also been reported with higher doses of aspartame, although these are yet to be confirmed in controlled clinical trials. Chronic use of aspartame may be more likely to trigger headaches. Research suggests patients with poorly controlled "absence seizures" should possibly avoid aspartame use. A short-term clinical trial also evaluated the effect of aspartame on cognitive and behavioral performance in children 3 to 10 years of age.

# **Conclusions**

There are many medicines that contain aspartame, and over 92 different symptoms are associated with aspartame poisoning today., which will cause great safety issues in patient The problem should be valued <sup>†</sup>

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# The Confirmatory of General Selfefficacy among Low Economy Teenagers in Taiwan

# LIN Szu-Hai, LEE Wang, WANG Ying-Wei, LIN Chia-Chen

# Introduction

The objective of this study is to explore those Taiwan economically disadvantaged adolescents who received help whether their self-efficacy will be affected by their family life, school life, self-concept, school counseling and mental health.

# Purpose/Methods

This study uses the dada of "Taiwan Database of Children and Youth in Poverty" by the institute of Taiwan Found For Children and Families. A total of 2,671 adolescents data at age between

13-20 have been used to analyze (male = 1,241; females = 1,430). This investigation was conducted from July 1, 2011 to October 31, 2011, by systematic selection in each country. In this study, structural equation model analysis has been used to identify self-efficacy model.

### Results

The self -efficacy of Taiwanese economically disadvantaged adolescents is different in gender (p<0.001); therefore, two groups of male and female would be explored individually. Male adolescents' family life is associated with their self-efficacy (p < 0.001), school counseling (p<0.001) and mental health and selfefficacy (p < 0.001). Male adolescents' school life has nothing to do with self-efficacy, but the school counseling is related with self-efficacy (p<0.001) and mental health (p<0.001). Male adolescents' s self-concept affects their self-efficacy (p<0.001), but school counseling has nothing to do with mental health. Female adolescents' family life is associated with their selfefficacy (p<0.001), school counseling (p<0.001) and mental health (p $\leq$ 0.001). Female adolescents' s school life is not related with their self-efficacy, but their school life is associated with school counseling (p<0.001) and mental health (p<0.001). Female adolescents's self-concept is related to their selfefficacy (p < 0.001), but self-concept is not associated with school counseling and mental health.

## Conclusions

Understanding Taiwan economically disadvantaged male and female adolescents' self-efficacy influenced factors, we should pay attention to these issues and solve these problems.

# Comments

Understanding Taiwan economically disadvantaged male and female adolescents' self-efficacy influenced factors, we should pay attention to these issues and solve these problems.

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# We'll be happy and competent in twenty years

# **BEACCO Virginio, MASCI Silvia**

# Introduction

The Prefecture asked us to carry out informative interventions in schools to inform students about risk factors of psychotropic substances. We have proposed a participatory model on protective factors to promote life skills .In reference to the standard1"Policy of Organization" we activate programs for people aged 0 to 23 years to focus on the training of trainers and programs of peer education. In reference to the standard 5 "Continuity and cooperation" we intende ensure collaboration with schools and other organizations.

# Purpose/Methods

The purposes are alliance between local institutions on health promotion, involvement of school managers, teachers and students to promote health in senior high schools, prevention of risk behaviour. The methods are the participatory model to implement project, questionnaire for adolescents about health, life skills, addiction, training courses for teachers, theatre and musical activities for young people about risk and protective factors on health. Video production about health, protective factors and addictions made by students

### Results

Our goals have been achieved across health literacy of school managers and teachers. One of the videos made by young people participating in the project was awarded in 2012 during the national conference "Gaining Health in adolescence". The video is a slogan to promote critical thinking versus addiction of substances and internet abuse. Each student in the winning class received a portable media player.

# **Conclusions**

Future steps that we may take to extend or further improve our practice are: development of cohesion and collaboration for health in the community, increasing the strategies of health promotion to empower young people's responsibility, implementing an appropriate and effective program to promote health in schools, developing a critical sense about health among young people, improving the self-efficacy among young people and increasing awareness about risk of substance use.

# Comments

We learned that participatory method is very important and it is better than informative method. The most mistakes or barriers we have encountered was during build networking stable with stakeholders, assessment and measurement of programs. Workshop on life skills and peer education to promote lifestyles. Sharing the best experiences towards young people

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A self-operated healthcare system for elementary school children in Ladakh: the illustration of the empowerment model in short-term volunteer service

# TAN Boon Fatt, WU Chia-Fang, OUYANG Chung-Mei, LO Yi-Ting, YANG Kuen-Cheh

# Introduction

Ladakh is the largest division of Jammu and Kashmir State in north India with elevation over 3000 meter. Our volunteer fieldwork experience in Ladakh in 2012 revealed a lack and inequitable distribution of medical resources. These led to the delay management of medical problems and illness progression for the past years. In 2012, we served in an elementary school and set up a prototype of healthcare center in order to alleviate the burden of the basic health problems.

# Purpose/Methods

In 2012, the healthcare center was located in the school office without specific assignment. During fifteen days of volunteer service in August of 2013, we further organized the healthcare center. The self-operated health care system was implemented through (1) Systemic organization and replenishment of medications and equipment (2) Different staff training programs regarding management of common medical problems (3) Creation of health record database (4) Service records of healthcare center (5) Connection with local hospital for further necessary referral.

# Results

The school provided a particular space for healthcare center; a healthcare manager was also assigned for its maintenance. We established the hierarchy, healthcare responsibilities, and roles of healthcare center manager, teachers, housemothers and senior students. They were able to manage with the medical problems encountered in daily life such as fever, diarrhea, dermatological problems, epistaxis and minor accidents. We duplicated the similar model to a nearby school and connected the local hospital as the backup of this healthcare system.

## Conclusions

Following an integration of volunteer services, local resources and local needs, we successfully established a sustainable self-operated healthcare system in two elementary schools in Ladakh. The system included the healthcare center for basic health care with each school member having different healthcare roles. The empowerment model is the core content of sustainability. We hope to further advance this model by building up a satellite healthcare network of the community, connecting the local schools and hospitals in Ladakh in the future.

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The empowerment model of shortterm volunteer service: the second year experience of health promotion for children in Ladakh

TAN Boon Fatt, WU Chia Fang, OUYANG Chung Mei, TAI Chin Cheng, LO Yi Ting, YANG Kuen Cheh

Introduction



Recently, serving in a volunteer short-term medical program is a trend in Taiwan hospitals. We tried to develop a sustainable and professional model for an elementary school in Ladakh, an area of Jammu and Kashmir State in north India with height over 3000m. In 2012, we finished the first health examination of 214 children and set up a basic healthcare center for common health problems. In August 2013, we expanded our multi-discipline team and provided the services to neighborhood.

# Purpose/Methods

Comparing to 2012, we recruited a dietitian in addition to doctors and nurse. Our service included 1) the health examination and referral system, 2) health worker training program for healthcare center sustainability, 3) health education workshop for children, designed according to the initial analysis of health examination. 4) evaluation and advice of nutrition based on fieldwork in local markets and hygiene suggestion for kitchen management. We also provided service in another school and visited local institutes in community fieldwork survey.

# **Results**

In addition to 214 children in 2012, we extended our service to another school of 250 students underwent health examination. Totally thirty of them accepted the medical assistance and thirty-eight of them received referral advice to the local hospital. The healthcare center was further organized by training a employee as health worker. Serial health education programs were arranged based on local needs and initial analysis of health education. Detailed nutritional and kitchen hygiene suggestions were provided to these schools.

# Conclusions

According to strategies for health promotion of WHO and empowerment model, we collaborated with local people and arranged available health resources meeting the local demand, culture and economic condition. The self-operated healthcare center in school was intensified with training the health worker. The professional nutrition and kitchen hygiene suggestions could improve children growth and healthy environment. By enhancing health literacy through health education, children improved self-care skills. We hope to develop a healthcare satellite network in Ladakh in the future.

# Comments

Recently, many hospitals in Taiwan encouraged employees to attend short-term international volunteer service. In concordance with the health promotion of WHO, we tried to implant empowerment model into the short-term international volunteer service. Our work emphasized the multidisciplinary team approach. The project manager is responsible for design and training program based on local needs and culture. Each professional work co-operatively and refer the manager information for further analysis. We try to establish the model of short-term service with sustainable benefits.

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The Improvement of School Function among Disable Elementary Students with Out-reach Special Education Intervention Program

# CHEN Wan-Yu, TSAI Ming-Lun, WANG Shu-Yi

### Introduction

Buddhist Dalin Tzu Chi Hospital has been providing out-reach rehabilitation services for disable elementary students with special needs. Rehabilitation team includes physiatrists, physical therapists, occupational therapists and speech therapists. Surveys of the school function among these disable elementary students with special needs after services is limited. We examine whether the rehabilitation medical services program cooperate with special education could improve the school function of students.

# Purpose/Methods

School Function Assessment (SFA), was used to assess 182 grade 1 to 5 elementary students with special need before and after services in November 2012 and November 2013 respectively. Participation function is used to rate the student's participation in major school activity settings- regular or special education classroom. Task supports function is used to rate the assistance and adaptations currently provided to the student for physical tasks and cognitive/behavioral tasks. Activity Performance function is used to examine the student's performance of specific school-related functional activities in each of the task areas. All students were received Informed Consent form and agreed by their parents.

# Results

132 students participated in the Medical Service and Special Education Intervention Program and completed the pre-post test. These participants are included in regular classes (n=26), regular and special classes (n=57), and special classes (n=49), The participants grade are, grade 1 (n=20), grade 2 (n=17), grade 3 (n=32), grade 4 (n=32) and grade 5 (n=31). After 1 year of intervention, the task supports and activity performance have significantly improved. The physical assistance pre-test score compare to post-score (32.57±7.21, 33.61±7.08 respectively, p=.029) and physical adaptations (34.25±7.73, 36.32±5.82, p=.003) and cognitive/behavioral assistance (23.98±7.19, 25.58±7.28 p=.004) and cognitive/behavioral adaptations (26.83±8.28, 29.78±7.73, p=.001).

# Conclusions

Disable elementary school student needs support from hospital. After the Medical Service and Special Education Intervention Program, significantly improvement of school function of special education students were proved. We suggest that according to students' individual needs, schools should cooperate with medical and rehabilitation team to provide rehabilitation services and improve school function of special education students.

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# Session P2.3: Improving care for psychiatric patients

Gender approach in the daily practices of community mental health services

# BICEGO Livia, SIGNORELLI Assunta, TACCA Laura

# Introduction

The WHO ("Gender in International Mental Health", report 2010) indicates the importance of women recognition as singular identity in the field of medicine and in particular in mental health area. The specificity of gender in terms of drug therapies and differentiated care paths is not investigated and practiced so much that social and health services often need targeted responses in a gender perspective. The Mental Health Department offers the continuity of the project "Women's Centre" (1990).

# Purpose/Methods

Mental Health Department of Trieste has developed a multidisciplinary group for the approach to women with mental disorder. The purpose of this multidisciplinary group is promoting innovative forms of acceptance and care of women who are making a mental disorder experience. It's necessary to encourage forms of aggregation and support among women by enhancing the natural aggregate resources of the territory for the reappropriation of citizenship rights and promote cultural and community projects to raise awareness on this subject.

# Results

Departmental project "Gender Approach" Establishment of a group of 38 workers of Mental Health Department Definition of development lines to improve care in mental health services, especially medications used and eating disorders Network construction with maternal and child hospital Training courses Organising a Conference by women's associations Cooperation with associations engaged in social transformation in gender perspective Critical thinking and written evaluation of take charge in gender perspective Collaboration with a cooperative for realizing projects for women with psychic suffering

# Conclusions

The increase in psychiatric disorders related to experiences of maltreatment and internal and violence external to the family requires greater attention to gender issues and the creation of targeted forms. The working group has outlined and shared a cognitive framework based on gender analysis, through which it's possible to read and learn about the singularity and then align more effectively the actions addressed to women.

### Comments

It is studying the possibility of doing a search action in conjunction with historical Women of the University of Rome 3 on new forms of psychic discomfort expression in relation to current economic and social conditions.

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The work in the prison of Trieste. Role of the Mental Health Department (MHD) in the prevention of hospitalisations in forensic hospitals

# BRACCO Renata, BABICH Daniela, BICEGO Livia, ORETTI Alessandra, SIGNORELLLI Assunta

# Introduction

The practical work of MHD of Trieste is aimed at: \(\sim \text{moving}\) towards the request, \(\sigma \text{recognition}\) and management of the crisis in places of patients' daily life \(\sigma \text{active}\) presence of Service in the community, \(\sigma \text{teamwork}\) The purpose of work in prison is to \(\sigma \text{ensure}\) care continuity for detained people who already receiving services for mental health \(\sigma \text{promote}\) application of measures alternative to imprisonment (parole, foster care, outdoor work) \(\sigma \text{avoid hospitalisation in forensic hospitals}\)

# Purpose/Methods

Established in 1979,the service provides prevention and treatment of mental disorders in prison. It's addressed to: incarcerated people already in contact with MHD detained people who request a psychiatric consultation Annually Our Public Health Service and prison management update the agreement that defines: intervention arrangements in prison list of personnel authorized within home district Staff identified (31 workers) comes from the 4 Mental Health Centers and the Hospital Service for Diagnosis and Treatment. The team is multi professional (psychiatrists,psychologists,nurses,social workers).

# Results

Each year, the MHD carries out about 200-250 interventions in prison and evaluates 20-25 persons already known to mental health services and almost as many who require psychiatric assessment during incarceration. About 80% are men, almost all Italian. Only a small minority among incarcerated people assessed for the first time is taken charge by the MHC team. Over half of incarcerated people suffer from a severe mental disorder (F2 - F3 - F6).

# Conclusions



Over the past ten years nobody who living in Trieste was sent to a forensic hospital. The presence of the team dedicated to prevention in prison and the MHC community base influence the outcome of people with mental disorder in the asylums. The action of MHD is aimed at responding to the needs expressed by the prisoners with mental health problems or disorders, such as: interventions on environmental situation of imprisonment, trying to involve the prison organisation in the therapeutic process support in providing legal assistance

### Comments

The program in 2013 (until November) costs about 22,000 euro. The cost is obtained by summing: the hourly cost of the intervention of the individual professional (if three professionals are present, hourly fees are 60 minutes each); an additional fee of 60% for the shift from the Mental Health Centre, a further 25% for the overall direction of activities. A day in a forensic hospital costs between € 300 - € 400.

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# The Efficacy of Animal-Assisted Therapy on Psychotic Symptoms among Individuals with Chronic Schizophrenia

# **CHANG Beh-Huan**

# Introduction

Background: Animal-assisted therapy is an evolving, non-invasive, adjunctive therapy. There have been no empirical studies to examine its efficacy on patients with chronic schizophrenia.

# Purpose/Methods

Purpose: The purpose of this study was to examine the efficacy of animal-assisted therapy on psychotic symptoms among individuals with chronic schizophrenia. Methods: The quasi-experiment with one-group pretest-posttest design was adopted. A convenience sample (N = 20) was recruited from the day ward of a psychiatric hospital in Taipei. In addition to regular psychiatric rehabilitation programs, all participants received the animal-assisted therapy 90 min/week in duration of 24 weeks. The Positive and Negative Symptoms Scale (PANSS) was administered repeatedly at baseline (week 0) and after treatment (week 24). Data were analyzed with paired t test.

# Results

Results: The significant differences between pretest and posttest were found on the PANSS total scores (t = 6.10, p < .001), the negative subscale scores (t = 2.49, p = .02), the general psychopathology subscale scores (t = 5.45, p < .001), and supplementary items for the aggression risk profile (t = 2.67, p = .02). All the differences demonstrated moderate to large effect

size (Cohen's d = 0.69 - 1.93). Specifically, the most improved items included passive/apathetic social withdrawal, tension, depression, poor attention, lack of judgment and insight, poor impulse control, preoccupation and difficulty in delaying gratification.

### Conclusions

Conclusions/Practical application: The animal-assisted therapy could improve the psychotic symptoms of patients with chronic schizophrenia and thus is suggested to be applied to clinical psychiatric rehabilitation programs.

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# The Effectiveness of Case Management Application For Patient with Schizophrenia

# CHANG Shu-Ling, GUO Yi-Jun, SHEN Shu-Hua

# Introduction

Patient with schizophrenia applying case management processes, be with community rehabilitation resources to help stabilize patients living in the community, improve treatment compliance, access to health care quality. The purpose of this study was to explore the effectiveness of case management application for patient with schizophrenia.

# Purpose/Methods

The National Health Insurance Bureau 101 years in the southern region schizophrenic improvement program list information was used as the data base in this study. The subjects were 1520 patient with schizophrenia randomized from information list. Access database was build up to track cases back to the cases diagnosed condition and regularly updated information. To monitor the patient who regular returned to the outpatient department every month, for the patient who irregular back up and missed appointments two weeks, giving the phone call a week for tracing. From lack of medical patients and severe cases, notify the physician and hospital professional teams, home care referrals, providing continuity of care. Five indicators of quality assessment for patient with schizophrenia applied for statistical analysis.

# Results

After analysis of this study, the indicators of quality in 2012 ,the average number of visits per month has 1.34 times, the ratio of 4.3% was the outpatient psychiatric irregular patients , compulsory hospitalization rate was1.7% .Compared with year 2011, the finding revealed that the average per psychiatric outpatient clinic visits per month 1.37%, 5.6% in the proportion of outpatient psychiatric irregular, compulsory hospitalization rate of 2.5% of visits, significant differences and improvements.

### Conclusions

The study intervention through case management, tracking and ongoing care to construct a complete case management for patient with schizophrenia improve processes to achieve effective diagnosis of dynamic tracing back cases, timely intervention measures for health care of the different nature of the case, from repeated medical resources and enhance the quality of care.

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# Effectiveness of Illness Management Model for Psychiatric Patients in Day Care Center in Taiwan

# CHEN Hsin-Chi, LIN Esther Ching-Lan, CHIEN Chun-O, YEH Shih-Pine

# Introduction

Accumulated evidence supports the effectiveness of equipping chronically ill patients with the knowledge and skills of illness management, including mentally ill persons. Illness management interventions can benefit individuals with serious mental illness by improving their treatment-related illness knowledge, insight, and psychotic symptoms. In Taiwan, the day care center is a common treatment modality for assisting mentally ill persons reentering community. Psychiatric nurses can provide quality care in such an advantageous position by using the manualized illness management intervention.

# Purpose/Methods

This quasi-experimental study aimed to develop a manualized illness management intervention for mentally ill patients in day care center, and examine its immediate effects and one-month follow-up for 24 participants on four outcome indicators—Knowledge For Illness scale (KFI), Drug Attitude Inventory (DAI), Medication Adherence Rating Scale (MARS), and service satisfaction. The purposes and procedures of this study were explained to all participants, and all of them completed informed consent. SPSS 18.0 for Windows was used to analyze all data.

# Results

Most participants were female, college-level, single, jobless, and with a diagnosis of schizophrenia. The mean age was 37.33±11.48, and the mean illness duration was 12.96±10.82 years. The manualized illness management intervention was conducted as 3 cohorts with 8 participants in each 8-session group format. Using Wilcoxon Signed Ranks test, participants improved immediately on DAI and MARS, and the effects on knowledge of illness causes and adherence behavior lasted for one month. All participants completed above 80% sessions of the intervention.

# Conclusions

The manualized illness management intervention had positive impacts on mentally ill patients in day care center. Future studies with a two-group randomized controlled design and extended follow-up will determine the long-term effects of the illness management intervention.

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# Change process for the application of pet therapeutic model to a patient with chronic schizophrenia

# YANG Hsin-Ju, FENG Ho Yi, SHAO Wen-Chun, HUANG Chia-Li, YEN Jen-Hao, HUANG Pei-Lin

# Introduction

To understand the cure process for the application of pet therapeutic method to a patient with chronic schizophrenia.

# Purpose/Methods

Qualitative case study method and pet therapeutic concept are adopted to perform semi-structural interview and observation for data collection on "twice a week" basis for a total of eight counts. Moreover, content analysis method is adopted for data analysis, then four principles proposed by Lincoln and Guba (1985) are used as data for analyzing the rigor.

# Results

Three themes and six sub-titles are displayed: (1) Biophilia: To grow and multiply without end, to reproduce for the next generation and to experience the meaning of life; (2) Role positioning: To simulate the role behavior and to inspire empathy and care; (3) A falling leaf returns to the roots: Spiritual anchoring and self-fulfillment.

# Conclusions

It can assist the clinical medical personnel to understand the help that can be provided by assisted therapy. Through this model, diversified activities are developed, and the living quality of the patient is also enhanced.

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2013 Mental Care of Zhongshan Community, Taipei City – Cases of



# Discharged Mental Patients and Solitary Elders

# JUNG Shiao-Ying, CHU Hui-Chuan, KON Jing-Wen, XIX Jia-Chi

# Introduction

The World Health Organization shows that there are about 42 million people suffering from mental disorder illness worldwide in 2013, and more than 50 percent of mental patients do not receive appropriate care. In Taiwan, there were 130,802 mental disorder patients in 2012, and among which 1,455 lived in Zhongshan District. Early intervention including medication treatment and community mental health care to discharged mental patients will lead better result of patient's progress.

# Purpose/Methods

1. 15 sector nurses, 1 social worker and 1 care visiting staff of Zhongshan District Health Center conducted visits. 2.

Caring model: (1) Caring approaches: home visits, telephone interview and personally interview in the Health Center. (2) Sector nurses visit solitary elders who over age 65 and evaluate whose mental condition by Brief Rating Scale (BSRS). (3)

To refer cases to specialists if patients present deterioration. 3. To conduct group music activity for chronic mental patients. 4. To analysis data by using Excel 2003.

# Results

1. Between January 1 to November 30, 2013, there were 5,863 times of visits for taking care 1,506 patients who suffering from mental disorders: 51.9% of care held by home visits, 45.5%by telephone visits and 2.6% interviewed in the Health center, 82.7% of patients present steady symptoms, 9.2%had been improved, and 8.1% with deteriorating condition. 2.

The sector nurses conducted home visits for410solitary elders over age 65, 396 accessed the survey. 96.6% participants' emotional condition was stable, 8.8% had minor mental issues, and 0.8% had moderate level of mental issues. 3people had to refer to specialists; one of them was referred successfully, and the rest two people rejected to access further medical service. 3. Group music activity- there were 44 times of musical activity had been conducted, with 51 chronic mental patients participated. 20 persons participated regularly, and only one of them had symptoms deteriorated. 9 irregular participants went to work. And over 90 percent of participants had positive responses about the musical activities (good and excellence), 10 percent had no comments.

# Conclusions

The nurses, social worker and care visiting staff of Zhongshang District Health Center can serve the mental disabled by observing their emotional conditions, providing individualized health mental care, and referring them to the specialists if necessary. Hopefully, the Health Center will be the platform for mental disabled, families and community, and implement more supportive activities to promote social participation.

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Using "Emotional Tree program" to improve emotional awareness and coping skills in support groups for patients with chronic psychiatric patients during the job training phase

# SHIU Shau-Ping, HUNG Wen-Ling, LIN Yu-Shi, HSU Chia-Ling

### Introduction

After the acute phase of treatment, many chronic psychiatric patients are relatively stable that will choose the job training . However, the therapists must be concerned with the physical and mental state of patients in the job training process, to ensure that get the balance of emotional stress. Therefore, psychiatric patients can enhance the emotional self-awareness and get emotional health through a series of discussions about the source of emotions, the types of emotions, and the impact of emotions.

# Purpose/Methods

There are 16 psychiatric patients in the group program, divided into four groups. Implementation modalities of 1 time a week for 1 hour, continuous 8 weeks. The groups begin with a panel discussion conducted. During the implementation of the program, the members discuss about what are emotions and where they comes from, the types of emotions, the impact of emotion on their own. Finally, the members use "Emotional Tree" as metaphors to discuss the relationship between green leaves blasted leaves.

# Results

After the program, the psychiatric patients could 1)identify the types of emotions, such as: anger, sadness, fear, happiness, love, surprise, disgust, shame, contempt, and so on. 2)expression of specific positive and negative emotions experienced events. 3)realize the "Emotional Tree" indicates that the positive emotion is green leaves, and negative emotion is blasted leaves, and green leaves would become blasted leaves, then blasted leaves become nutrients of green leaves. 4)accommodate all their emotions with a positive attitude.

# Conclusions

The psychiatric patients share about their source of emotions, the types of emotions, and the impact of emotions in groups are important experience. After eight weeks of interactive group activities, the members could understand what are emotions and accept their own emotions, whether it is positive or negative emotions. Therefore, use "Emotional Tree" as metaphors to understand what is emotion can make the members acquire emotional coping skills.

# Comments

During hospitalization, therapists must actively assist the chronic psychiatric patients in bio-psycho-social integration. Therefore, therapists can provide many emotional support groups programs to release their pressure, and to support their emotions during their leisure time for psychiatric patients of the job training. As a result, the psychiatric patients will recover their confidence to face mental illness.

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# Explore the effect of self-efficacy with preceptor training for psychiatric patients in day care

# CHEN Shu-Fen, CHANG Chu-Hui, SHEN Shu-Hua, LU Chia-Wei

# Introduction

Participants: 68 patients who hospitalized more than 6 months in one southern Taiwan psychiatric day care were included by convenience sampling. They were divided into intervention group and control group by 34 patients equally.

# Purpose/Methods

This study was a cross-sectional trial. Between January 2013 and September 2013, the intervention group received training program per week for totally 30 times and the training included motivation promotion, knowledge education and counseling skills. We collect data by self-made questionnaire and focus group and the treatment effects were evaluated using descriptive statistics.

# Results

The questionnaire survey showed that there were significant difference on self-efficacy between intervention group and control group. Compared with control group, 28 percent plus on those who thought they have much strength in intervention group. And 16 percent plus considered they could help others proactively. One-quarter plus could accomplish the mission independently in intervention group. 30 percent plus felt satisfied with interaction with others. 42 percent plus believe that helping others was happy.

# Conclusions

One-third plus felt confident even once failure. Focus group showed that most participants grind away for keeping the ball rolling even felt frustrated. Preceptor training made them better and well-being. They were willing to engage in training persistently.

# Comments

Clinical implication: Through this program, participants learn to help others proactively; enhance the interpersonal skills; improved confidence and independence. The effect on self-efficacy with preceptor training in psychiatric rehabilitation could be further explored.

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Using "Team STEPPS" to reduce the rate of escaping and committing suicide of the psychiatric patients from Emergency Department

# WU Chun-Hua, LEE Ming-Ho, WU Mei-Jane, LI Hsing-Chia, HUANG Ping-Wen

# Introduction

Located in the Chang-hua Industry, featuring a remote place and sparse population, our hospital is designed as a hotel. The hospital is equipped with six exits, including three exits in ED . From 2007 to 2012, we had 27 psychiatric patients(25 patients with major depression, 2 patients with alcohol abuse) escaping from the ED, revealing the crisis of the protection of psychiatric patients. We established a team, using Team STEPPS , aiming to reduce the number from 27 to 12 patients.

# Purpose/Methods

ED in our hospital is an open space. There are three exits in the emergency room; however, only one of them has a guard. Analyzing the causes, we can find that 25 patients (92.6%) were escaping from Exit One. Besides, 2 patients (27.4%) were escaping from Exit Two. Therefore, to reduce escaping, we enforce the isolation door and strengthen night patrol. We make an ED escaping Algorithm. Our team uses Team STEPPS to prevent patients from running away.

# Results

During 2013, from January to July, only three patients escaped. 1. Apparently, we acquire the perfect satisfaction with the operation of Team Steps. Even though three patients ran away, nobody committed suicide. The rate for committing suicide is 0%. Therefore, the staff in ED uses Team STEPPS model to reach the satisfaction of 90%. 2. The rate of satisfaction to set up Entry Control to protect the medical staff reaches 86%.

# Conclusions

In the ED , the psychiatric patients are the most unstable and not every patient is accompanied by their family. Additionally, the hospital is situated in a remote location, only to increase the difficulty to find them out. Although the situation has been improved after the use of Team STEPPS , we still hope to lower the rate of patients escaping to 0 in the future. It is very important for the psychiatric hospital to take good care of the patients.



# Comments

It is important for both the patients and the staff working in the hospital to carry out the Entry Control in ED. Besides, the patients with heavy depression tend to commit suicide. As a result, apart from strengthening the filtering system and protecting isolation, it is the team's responsibility to take care of the patients hospitalized in our hospital.

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# How to work systematic with patients' food habits in psychiatry

# **FREDEN Susanne, KAUPPI Karin**

# Introduction

The prevalence of non-communicable diseases is high in people with severe mental illness and life expectancy is vastly shortened. Unhealthy lifestyles, including eating habits, contribute to this. There is a need to improve health promoting strategies to support patients to make decisions about their own health. National Guidelines to promote evidence-based intervention to support patients with unhealthy lifestyle was published recently. The guidelines are developed to reduce health inequality, targeting vulnerable groups. The methods are based on a salutogenic approach.

# Purpose/Methods

At Uppsala University Hospital, the implementation concerning eating habits according to the Guidelines has started at the Division of Psychiatry. The aim is to identify patients with unhealthy eating habits, and to offer advanced counseling with dietitian in order to support patients to more healthy eating habits. This routine has been implemented at the day care facilities for patients suffering from depression and bipolar disorder. The outpatient clinic for psychosis care is the next clinic to implement the guidelines.

# Results

The work of screening and action are ongoing. So far 203 patients are surveyed, of whom 67 (33%) had unhealthy eating habits. Of these 35 (52 %) accepted the offer of advanced counseling. The follow up is ongoing and number of patients with improved eating habits after intervention, will be reported at the time of the conference.57 patients had advanced counseling for other indications than unhealthy eating habits.

# Conclusions

The new guidelines offer a systematic way of identifying persons with the unhealthiest eating habits. It is possible to support patients with serious mental illness to improve their eating habits. The structure and systematic approach is suitable for most of the psychiatry units at the hospital and it will be implemented during 2014.

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# Different Clinical Characteristics of Single and Repeated Pneumonia in Patients with Severe Mental Illness

# CHOU Sheng-Yu, YU Sung-Lin, LEE Shin-Min, SUN Hsiao-Ju

# Introduction

Patients with severe mental illness (SMI) have an increased risk of several physical conditions, such as respiratory illnesses and gastrointestinal problems. Pneumonia is one of the leading causes of medical referrals to other general hospitals from Yuli hospital, a large psychiatric hospital in Taiwan. This study analyzed the clinical characteristics of these patients in order to find associated factors in SMI patients with single and repeated pneumonia for further health promotion strategies for these venerable patients.

# Purpose/Methods

Methods: Our patients with medical admissions due to pneumonia in 2012 were identified from their medical records. We reviewed the demographic data and clinical characteristics which include gender, age, body weight (BW), complete blood cell counts, biochemistry profiles, function level and medication regimen. Patients with annular single and repeated admissions due to pneumonia were surveyed and compared.

# Results

There were 230 patients with 355 admissions due to pneumonia (71 patients had repeated admissions). Among these patients, the gender ratio was compatible with our patient populations. Their mean age was 62.7 years. Comparing with patients with single pneumonia, repeated admissions patients were significantly with male gender (p<0.05), older age (p<0.05), lower bodyweight (p<0.01), lower serum hemoglobin (p<0.05), lower serum albumin level (p<0.05), more motor disabilities (p<0.01), lower clozapine daily dosage (p<0.01) and more mortality rate (p<0.05).

# Conclusions

Our findings presented SMI patients with repeated pneumonia had more male dominance, lower BW, higher percentages of anemia and hypoalbuminemia, as well as higher mortality. Further researches are advised in order to clarify the clinical meanings and implications. Repeated pneumonia is a lifethreatening event for patients with SMI, so that sophisticated health promotion program is needed for these patients.

# Comments

Patients with SMI have more and more physical co-morbidity during their aging process. Integration of mental and physical health promotion is recommended to face the challenge. Several

strategies have been noted to be useful, among them the regular exercise to build up motor function, quit smoking, adequate nutrition and bodyweight control to prevent cachectic condition, annual flu vaccination, pneumococcal vaccination every five years, periodical physical check up for non-communicable diseases(NCDs) and cancers, and care management for existed NCDs.

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# Exploration of Effects after the Intervention of Courses in Oral Health Promotion for Mental Health Staff

# SU En-Ping, SHEN Shu-Hua

# Introduction

With cognition change of mental disease and function degeneration, mental patients' personal health degrade and oral care and health can't be practiced. We examined oral health of 176 patients since 2011. The result showed the average DMFT index were 12.3, which revealed the delivery rate of patients' oral health was poor. This research expected intervention of courses in oral health could promote mental health staff's perception and behavioral concept of oral health promotion and then could help patients to do oral cleaning.

# Purpose/Methods

Purpose: This research used intervention of courses to know mental health staff's perception and execution and then to promote oral health. Methods: The researcher designed training courses and pre-post test, including oral health knowledge and execution, to estimate if staff's knowledge, attitude and behavior change or not after intervention of courses in oral health promotion.

# Results

61 staff accomplished the training course, and 79.4% were female, 51.7% were nursing staff. 92.1% of them never participating in oral health training course. The correct ratio of pre-post test in oral health knowledge was 71.58% and 79%, which improved 7.42%. The correct ratio of pre-post test in oral health execution was 80.2 and 81.6, which improved 1.4%.

# Conclusions

Since oral guidance skill of mental nursing staff was not practiced enough, it was a challenge to make patients to take oral checkup actively. The research showed staff's knowledge was improved, but there was no significance difference in oral cleaning. Jointing this course could know the concepts. If we want to promote oral health, the course should add clinical training to practice oral health in clinical care.

# Comments

With cognition change of mental disease and function degeneration, mental patients' personal health degrade and oral care and health can't be practiced. In clinical care, we still focus on care of mental health. We were less estimating patients' oral health, which resulted in high dental caries rate. Therefore, clinical cares still provide oral health prevention to promote patients' oral health and to decrease dental cost and then to accomplish the goal of patient centered medical care.

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# Case Management System in Communities for Suicide Prevention

# FANG Chun-Kai, HSIAO Hsueh-Wen

# Introduction

Case Management System (CMS) is a community based package of care, aiming to provide long term care for suicidal attempters. As a health promotion hospital, Mackay Suicide Prevention Center provides the CMS including 9 districts around our hospital.

# Purpose/Methods

The program was practiced on Tamshui Mackay Memorial Hospital and supported by New Taipei City Government from January to December, 2013. There were 6 case managers to service 9 districts in New Taipei City. All suicidal attempters were reported from health care systems, policemen, firemen, and general population. Case managers called out suicidal attempters every week at least 3 months.

# Results

There were 1191 suicidal attempters included (male: 425, 35.68%). 78.61% were reported from health care systems and 14.97% from policemen. The highest risk factors were conflict with family, couple, or friends. The most method was drug overdose. 64.96% were transferred to counseling and psychotherapy in communities. 13.38% were transferred to psychiatric services. 47.39% had not suicidal ideation 3 months later under the CMS.

# Conclusions

The CMS provided a complete network to help suicidal attempters not only in hospitals but also in communities. Counseling and psychotherapy in communities was a good model to prevent stigma for help seeking behaviors of suicidal attempters.

# Comments

Aggressive Case Management System is efficient to reduce suicidal attempt and suicidal ideation of suicidal attempters.

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# Session P2.4: Adapting community and home environments to the needs of older patients and citizens

Proposal of a comprehensive model: Binomial dependent carers

# BOQUÉ CAVALLÉ Montserrat, FERRE GRAU Carme

### Introduction

The current reality of care, care-dependent person and their carer requires defining a new model aimed at pairing caregiver-dependent (AlalBCD), where the disciplines of nursing and social work have a very important task because of their training holistic. The coordinated action of both disciplines becomes a tool with great potential for solving problems and reducing caregiver distress. The model gives importance to love as an essential part of care.

# Purpose/Methods

Based on the results of a descriptive, correlational and cross made 167 dependents Grade II and III and their carers City of Reus, describes the design of a nursing care model based on three pillars: caretaker, social services, dependent person. The most important of these models is the coordination of resources must respond to the needs and anticipate events, to prevent and alleviate unnecessary suffering of caregivers and dependents

# Results

From the study we believe that comprehensive care for dependents must have a nurse of the primary care team in the country with skills suitable for the realization of this work and with the support of Social Work be integrated on the same computer. To ensure the success of the model, the nurse in the care system should stem from the primary care teams already formed

# **Conclusions**

Love and care go together in the process of taking care of the dependent person, the first given, the primary caregiver and the informal network, the second is given by the formal network that provides social and health resources appropriate in each case. The algorithm of care and identification of the population at risk presented provides case management nurse with leadership and allows the integration of health and social resources to respond dynamically to the binomial caregiver-dependent person.

# Comments

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The contrast to the deaths in solitude and suicidal behaviors in collaboration with other agencies.

# BRACCO Renata, BABICH Daniela, BICEGO Livia, ORETTI Alessandra, SIGNORELLI Assunta

### Introduction

In Trieste there is an elderly population (aging Index 243% Trieste, Italy 144%) who lives in Ioneliness and isolation. In our region a high incidence of suicide was observed, above the national average (1986 to 1996 more than 22/100000) and close to the rates of Central European regions. Mental Health Department of public Health Service (ASS n.1 "Triestina"), the Municipality and a private service (Televita) have started a prevention program to reduce the isolation of elderly population (Amalia Project) and prevent suicide (Special Phone).

# Purpose/Methods

Amalia aims at increasing: □integration of resources, personcentered services in partnership with other services, □socialization of older and lonely people People are included in this program by family members, acquaintances, service operators. Televita contacts each day each person and assesses health conditions and needs. Special phone covers: □telephone monitoring − 24 hours 24 - of the needs of people at risk □different focus on actions to be taken □communication and awareness raising campaigns

# Results

3590 persons have benefited from "Amalia" since 1997 until August 2012 (mean age 81 years, 83% women) for a total of 24086 different services and interventions. Lonely deaths decreased from 5,68/100000 inhabitants in 2000 to 1,25/100000 in 2011 before increasing again in 2012. 15148 calls were received by "Special Phone" since 1997 until August 2012 (mean age 49 years, 60% women). Suicide incidence is reduced from 19,07/100000 in habitants in 2000 to 13,35/100000 in 2011 before increasing again in 2012.

# Conclusions

Project "Amalia" started with the aim of reducing social isolation and loneliness of elderly and has contributed to reduction of solitary deaths phenomenon. Special Phone was created with the aim of preventing suicidal behavior in the belief that suicide is a permanent remedy for a temporary problem on which it is possible to intervene trying to relieve the unbearable psychological pain. For both projects campaigns in local press and at particular groups of citizens and professional groups have proved fundamental.

### Comments

A working group was established for further analyzes. It is not clear whether such positive outcomes in the first 10 years can be attributed to the program activities or to other factors such as the reduction of suicide rates in the North East of Italy and neighboring Nations.

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# Health Determinants of Northeastern Rural Elderly in Thailand

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## Introduction

Rapid growing of the aging population is a great global health concern. In Thailand, there are many public health projects and players in this field. However, the determinants of health of the rural and non-rural area differ and need to be addressed for a better project planning process.

# Purpose/Methods

The objective was to study the determinant of health of the elderly living in the Northeastern rural area of Thailand. Samples were 530 elderly from Kog-kruad sub-district area. Tools were demographic and health screening/assessment questionnaires developed by the Thailand's Department of Health, Health Service, and Mental Health. Questionnaires included Activities of Daily Living: ADL index, 2Q/9Q depression screening, mental health screening, and mini nutritional assessment. Data collection was done during August-December 2012. Data analysis used percentage, mean, and standard deviation.

# Results

Most male elderly had a good BMI and waist circumference while female elderly did not. 50% had visual problems while 22% had hearing problems. Mild dementia was found in most elderly (72.3%). 70% never had a health checkup and 57% had unfavourable health behaviors ie. sedentary lifestyle and low-fiber diets. 94.9%, 4.0% and 1.1% of the elderly were categorized into socially-bound, home-bound, and bed-bound groups respectively. 0.6% had a severe depression, 6% had malnutrition. They were referred for treatment.

# Conclusions

Health checkup and screening are important for the elderly as shown on this research that many health problems were overlook and not well-addressed. Rural residents encountered both health and socio-economic problems. The health behavior and health literacy differ from those of the urban elderly. Health promotion projects should therefore focus on improving these determinants,

instead of each individual factor, for an integral and sustainable approach.

### Comments

Each community should perform a parallel study to this one, to determine the health problems of the elderly and referred for treatment. Health checkup should be a part of universal health coverage and health service access should be promoted.

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# Use health-aging mode in the community to promote oneself health care.

# CHIU Yu-Chen, HUANG Ying-Chi, YANG Jen-Hui, HSIANG Hsin-Yu, YANG Ming-Chih, TU Shih-Te

# Introduction

Old people's health is the guide, establish health-promoting internet. According to Ottawa's program of action to establish health-aging plans, let the old maintain normal life quality to gain health-aging mode, longevity, and good life as their goals in the community.

# Purpose/Methods

1.Create a health-sustaining environment, and hold some forums and sifting test. 2.Cultivate lots of kind volunteers to reinforce caring action. 3.Hold "The class, health gymnastics, for the old " and health serial activities.

# Results

5916 people did fitness tests; 4706 people joined the forums from Jan. to Oct. in 2013. 233 people tested their blood pressure and blood sugar in regular time, Testing before & after the activities, the improving ratio was 32.66% in exercising, eating, and life habits.

# Conclusions

By the topics, health aging and health promoting activities, we can activate the old-aging communities and families, and establish old-aging amicable environment. Let old people's health be noticed and then promote their abilities about taking care of themselves; every old people has healthy body and mind.

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# Teaching and supporting courses for the family who were caring older patients with dementia

# FANG Chun-Kai

# Introduction

How to teach and support the family who were caring older patients with dementia is important, particularly among just diagnosis. In the project, we designed a series for help family and patients with dementia.

# Purpose/Methods

The project was practiced on Tamshui Mackay Memorial Hospital and supported by New Taipei City Government from May to November, 2013. There were 24 courses which were held in the outpatient areas every Saturday morning. All participants were the family caring dementia patients (CDR: 0.5-2). When the participants joined the courses, the patients joined the different activities at the same time in hospital.

### Results

There were 28 participants who came from 12 older patients with dementia attending the projects. All most participants attended over half courses, and their patients came together to join the other activities. 16 participants completed the satisfy questionnaire. The global satisfy rate of the project was 100%. Many participants felt supported and learned a lot of knowledge from the courses.

# Conclusions

The designs of the project were welcomed by family of dementia patients because all they came together. The small and fine group should be promoted in the dementia care systems.

# **Comments**

Taiwan has become an aging society. A health promotion hospital has to provide educational programs for the public and family.

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# The Outcomes for Nan-gang District Evergreen Health and Energy Stations

# HSU I-Ping, LEE Hui-Lan, LIN Yi-Chien, JOU Hei-Jen

# Introduction

Taiwan has become an aging society. In 2012, the percentage of Nan-gang District' population aged over 65 years old reached 11.24% of the total population and was over 13,056. In order to

improve the quality of life for elderly in Nan-gang District, two Evergreen Health and Energy Stations were set up and held 24 courses for 71 persons of participation in 2013. Elderly got selfworth through social participation and interactive learning activities and their state of health was improved.

# Purpose/Methods

Nan-gang District Health Center integrated public and private sectors to establish two Evergreen Health and Energy Stations. There were 24 courses for a period of three months for each station. In order to enhance the responsibility and ability of self-health management for the elderly, at least two courses were held per week, courses content including chronic disease prevention and control, dementia prevention and physical training. Body composition was measured before and after the courses to evaluate the effectiveness of this program.

### Results

There were 71 elderly participants aged between 65 and 87 years old, 12 males and 59 females. Their body composition had been improved after this program. The mean weight was reduced from 59.33 kg to 58.93 kg; the mean skeletal muscle from 21.30 kg to 24.33 kg; the mean body fat mass from 19.81 kg to 19.29 kg; the mean body fat percentage from 32.92% to 32.22% and the mean BMR from 1223.71 kcal to 1226.08 kcal.

# Conclusions

After the program of Evergreen Health and Energy Stations, the elderly participants'body composition had been improved. It shows that the continuous program in the community is meaningful. In order to promote elderly into the community, the center will continue to set up the other stations in Nan-gang District this year. By applying more existing resources and exploring more fields of courses, the programs can be promoted through community service and the elderly achieve healthy aging in the community.

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# **Build Toufen County Health Aging**

# **HUANG Shu-Hua, SU Chun-Hsien**

# Introduction

For the urban planned townships in Toufen town, Miaoli County mountain line key position, there is 10.34% number of total population over the age 65. Young people enter employment, unable to take care of the elderly at home and town residents to inadequate understanding of the relationship between health and disease prevention and the flapper lifestyle factors turn them into health hazard. In addition, chronic diseases affect their vision and hearing loss, easily lead to accidents and reduce social activities which underscores the problem urgently needs health promotion and care for the elderly.

# Purpose/Methods

Health habit, fall prevention and home safety for the elderly can be widely promoted, and enhance their quality of life, thereby reducing accidents, construction of a healthy and safe community and happiness elderly. Through elderly health needs assessment collection data, through organization discussion established elderly health promotion topics, and five big action programme of across sector mechanism.

# Results

Project results were shown as followings: (A) Environmental changes: 1. 130 elderly home safety environmental assessment completed. 2. Increased health advisory station 7 station 15,000 people for public health advice. 3. Townhouses combined 20 community health promotion initiatives to apply for the elderly of 45 games and competitions. 4. Elderly health campaign planning community sites increased from 12 to 20. 5. Building age-friendly healthy eating restaurant increased from 5 to 9. 6. Hospital twice a month health check point convenience and accessibility of a total of 50 field stations , for interventional Chinese medicine health counseling five games. (B) Behavior change: 1. 200 elderly people on their own home environment to detect security. 2. 300 elderly active attention to safety of the home environment. 3. 1000 initiative to the hospital for the elderly health check. 4. 1500 elderly people to actively participate in community activities. 5. 1300 elderly exercise at least 30 minutes a day. 6. 1280 elderly have three vegetable and two fruit diet daily. 7. Compared to their peers and happiness increased from 57% to 73%. 8. Compared to last year the within-subject comparison happiness increased from 54% to 69%.

# Conclusions

Community health aging promotion work must to by community residents itself do up, is a continued and long-term of work, therefore government and executive units should detail and carrot on planning and design, funds financing, policy executive force and difficult overcome of method to reached community health aging promotion eventually target.

# Comments

This project integrated community related resources, promoting health aging promotion, embedding healthy life style into community elderly life, and through community power to established in to health aging community, also called on the government on the integration of community resources should make greater efforts to build real healthy aging Toufen new town.

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Results Of Using The Ottawa Charter
As Framework For Promoting Healthy
Aging

# **HUI Mei**

# Introduction

This research aims to collect data regarding the participation and subsequent outcomes of the Healthy Aging Program amongst the residents of Zhonghe District in New Taipei city. The Ottawa Charter developed by the WHO serves as the framework for the development of this program.

# Purpose/Methods

This is a cross-sectional study involving a total of 474 residents from four villages of Zhonghe District of New Taipei City who had participated in the interventional activities and events of the Healthy Aging Program. The strategies of the program were based on five action areas of The Ottawa Charter. The outcomes were collected by reviewing the records for each intervention event and by interviewing the participants. There were a total of 30events with 600 participants interviewed.

### Results

Out of 1,769 residents of the four villages of Zhongehe District, 474 (27%)people were involved in our study. The mean age was  $66.9(\pm 1)$  and they were mostly married (90.5%) and retired (88.9%). More than half of the participants showed moderate to high levels self-reliance in terms of health( 62.0%). Level of happiness: 323 out of 470 elderlies( 69%) felt that they were happier than their peers and 328 people (70%) thought they were happier this year compared to the year before .

# Conclusions

1. Promoting healthy aging amongst the elderly at the level of the community is effective; the residents felt that they had more opportunities to participate in various health-related activities provided by the community, were more satisfied with life and led healthier lifestyles.

# Comments

5. This research team continues to strive for the goal of healthy aging by collaborating with more communities in the future to provide convenient, easily accessible health-care services for the elderly.

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The effect on promoting creative aging for elders by community hospital: Taiwan Experience

KAO Li Chueh, CHIANG Hsiao Wen, JHONG Siou Ling, HSU Cyong ru, HSIEH Ho Su

Introduction



The population of Gandau comminuty is 11,276, and with 13% of them, which is 1461 people over 65 years old, Gandau has an aging index of 103%, making Gandau an aging community. As the result, Gandau hospital set its goal as a community hospital, aiming for developing the treatment for chronic disease and long term care. We hope that by encouraging the elders to participate in creative activities, we can bring back their vitality, thus help them to develop self-dignity and meaning of life. It's our hope to achieve "Creative aging" through increasing society participation, slowing the aging process and decreasing the disability.

# Purpose/Methods

We adopt Ottawa charter as our strategy, and set up the community promoting committee in 2005. The first tasks the committee completed was set up the priority issues for community health, train 42 volunteers and enhance the activeness of the community through empowerment. In 2006, we formed the "elder care center" which we used as the base to connect with health organizations, schools, social welfare groups, so that we can integrate and connect resources We created the database of elder's health management and introduced a series of creative activities, such as aerobic course, lower limbs exercise, music lesson, dance lesson, intergeneration historical story telling activity, performance for public service, etc. We hope that by encouraging the elders to social participation activities, the physical and mental health of the elders can be promoted.

### Results

Eight multi-sports group was set in the community, and has 1012 participants altogether. According to the questionnaire done by 57 elders participated in the activities, 93.2% of them feel satisfied. In 2013, the questionnaire of life satisfaction was randomly distribute to 166 community elders who's over 65 years old to discuss whether the participation of the elder center or health promotion activities do any different to them. The result shows that F=15.43(P $\leq$ 0.000) has significant difference, meaning that those who participated has higher satisfactory over life, and those who keep participate also have greater satisfactory than the ones who quitted. From the physical aspect, only 4 elders suffered from accident falling, and 75% of the elders has gain good control over their cardiovascular disease. According to the physical fitness test, the elders show excellent physical condition. The numbers of reaching such condition in each category is 97.1% in lower limbs muscle endurance, 92.8% in upper limbs muscle endurance,91.3% in Cardiorespiratory endurance, 87% in flexibility, 76.8% in agility.

# **Conclusions**

Through the recent health intervention we can see that the elders have gain positive attitude and change toward creative activities. Such changes not only can allow effective control over chronicle disease, lower the chance of disability thus decrease the cost of health policies, they also open up the possibility of the elders, and accelerate their brain function. The elders can now find out their true value and live a happy life, therefore fulfilling our idea of active aging.

# Comments

The most important issue on dealing with the aging problem is to help the elder to go through the aging process with dignity, vitality. Aside from the social welfare policy promoted by the government, every one of us should help to plan and realize such

idea in reality. What we can do now is to create more places for the elders to gather together so they can keep participate in the social network, cultivate the positive attitude and behavior toward life, thus allow them to keep the healthy physical and mental condition, so the idea of aging in place can be realized.

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# Catholic Hospital supported Church-Based Neighbourhood elderly center : A pioneer study

# KUO Hui Ya, LIN Shu Fen, LU Yen Wen, HSU Chiung Wen, HUNG Ling Yu, TSOU Jhi Chyun, MA Hon Kwong

# Introduction

WHO had published a policy framework on Active Aging in 2002, emphasizing the importance of a healthy, participative, and safe lifestyle for the elderly. Our hospital cooperates with several churches to create a new model of health services for the physical, mental, and spiritual need of the elderly.

# Purpose/Methods

Our hospital encourages churches to open their space while not having ceremonies and hold activities for the community elderly to participate. Medical professionals are involved in these activities, connecting local resources, developing appropriate content that meet the needs of the elderly and the community.

# Results

Eight churches joined the plan, providing 220 telephone and home visits for the elderly, 7761 attendees for leisure activities, long-distance health self-management for 1378 persons, and meal service at home or at church for 5738 persons per year. More than 95% of the participants feel more capable and energetic for ordinary life, being more respected, and have a better interpersonal relationship with families and friends.

# Conclusions

Churches have their advantages for community care services. These services make the community elderly satisfied in spiritual care, health maintenance, and leisure entertainment. It will be encouraging to develop more churches to provide their resources for community care services. The church can make a positive contribution to Active Aging for Taiwan's elderly.

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# Implementation Results of the "Agefriendly and Suicide Prevention Care Program in Beitou District, Taipei"

# LIN Hui-Ping, LIN Hui-Ya

## Introduction

The program consolidating all related resources in Beitou District was commenced in 2011 for establishing the "Age-friendly and Suicide Prevention Counseling Network". The program trained 1,763 suicide gatekeepers and established a cooperative arrangement with the Tri-Service General Hospital Beitou Branch for the provision of professional psychiatric treatment. Furthermore, "biofeedback therapy" and "hot spring" were launched to help senior citizens regulate their bodily functions and alleviate the sense of anxiety, thereby reducing suicide-related mortality among senior citizens.

# Purpose/Methods

The study selected candidates from the community residents at the age of 65 years and above using Brief Symptom Rating Scale (BSRS-5) and completed the screening test on 2,830 subjects. Test results found 293 subjects to possess depression tendencies (scoring >6 points in the BSRS), and referral service was provided through proper resources. Descriptive statistical analysis, Chisquare analysis, and paired T test were conducted using SPSS 20.0 software, and the suicide mortality per 100,000 persons was determined based on demography.

# Results

According to the Department of Health, Taipei City Government, the suicide mortality among individuals with ages between 65 and 79 years was 32.47 per 100,000 persons in 2011; vis-à-vis the suicide mortality of 52.06 in 2010, a decrease of 37.6% is noted. The suicide mortality decreases from 15.95 (2011) to 11.06 (2012) per 100,000 persons; a decrease of 30.65% is noted. The results showed a significant decrease in the percentage of persons with depression tendency (from 65% to 17%; p<0.001)

# **Conclusions**

The study found that providing weekly "biofeedback therapy" and "hot spring" sessions to the high suicide risk patients for a period of six weeks achieved a significant drop in their post-therapy depression score(p<0.001). This indicates that the implementation of intervention measures effectively alleviated the degree of depression. Hence, findings may serve as useful reference to related parties working with patients with high suicide risk.

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Elderly simulation program made the rural community residents understand aging-related inconveniences: an experience of a local teaching hospital in Middle Taiwan

# LIN San-I, YANG Tsung-Hsien, LAI Pei-Yi, HSIEH Yu-Chan, CHAN Wen-Ching, HSU Tien-Kuei

# Introduction

The proportion of adults > or = 65 years old increases in the developed world. Previous studies showed elderly simulation exercises are useful to help medical students better understand the needs and feelings of the aging. However, the researches about the elderly simulation activities among people in the community are rarely reported. The senior citizen's welfare plays an important role in elderly, but the perception of the interests among people in a rural community may be unsatisfied.

# Purpose/Methods

This study aimed to investigate the understanding of aging among people who attended the elderly simulation program in a local teaching hospital in late September 2013, in Middle Taiwan. We designed the elderly simulation program to sensitize people to processing of aging, including hearing, speech, mobility, vision, and dexterity. Information on participant's basic characteristics, understanding of aging inconvenience, and awareness of the senior citizen's welfare was ascertained by questionnaires.

# Results

Of the 83 participants (the response rate 96.5%), 75.3% were female and 58.8% were 40-64 years in age. Half of them lived with elderly. The agreement rate of inconvenience about hearing, speech, mobility, vision, and dexterity was 94.0%, 95.2%, 96.3%, 96.3%, and 95.2%, respectively. The misunderstanding rate of the senior citizen's welfare was from 7.2% to 42.2%. A total of 98.8% approved this program and expected another aging-related activity.

# Conclusions

Most of participants agreed the elderly simulation program and were sensitized to functional limitations in the elderly. Many of the community residents were unfamiliar with the senior citizen's welfare. More aging-related activities were suggested to enhance the needs in the elderly. Further studies can enroll more people to participate the elderly simulation program to create a more healthy community.

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# Association between Health-Related Quality of Life and Risk Factors among the Elders in Southern Taoyuan County: a Follow-up Study

# SHEN Meng-Shuo, WU Wen-Chi, KANG Hsiao-Yen

# Introduction

Many studies related to quality of life (QOL) had emphasized on the effects of specific diseases or treatments on the QOL of patients. However, few studies have investigated the related factors of QOL of the general population, especially the elders. Elder's QOL is affected by the physiological, mental and social factors. This study aims to investigate the risk factors of health related QOL among the elderly residents in Ping-Jen District, Taoyuan County.

# Purpose/Methods

Subjects from the Community Screening of the LandSeed Hospital were followed from 2006 to 2012. The eight leading risk factors related to the chronic diseases (WHO) as the health risk factors and nutrition supplements consumption were chosen. SF-36 was as the indicator of QOL of the elders. The scores of subscales and components were used as the ten dependent variables. The mixed models were used to analyze the associations between the risk factors and the scores of SF-36.

Over 75-year-old elders had a lower PC, PF and RP scores. Elderly who's yearly income more than 16,666 US had a higher VT score. The elders who exercised had a higher PCS and MCS score. The elders who consumed at least three portions of vegetables had the similar result. BMI over 30 is a risk factor of PC and PF. The elders who ate more nutrition supplements had a lower PC, GH, and BP scores.

# **Conclusions**

The risk factors of QOL among elders are unlike those in the general community. Chronic diseases are not the major factor of elder's QOL. Income has a significant effect on elder's mental health. Exercising and vegetable consumptions can improve the elder's both physical and mental health. Obesity still affects the elder's physical health. Based on the results, it is suggested that encouraging elders to exercise, consume more vegetables and lose weight, can be beneficial to their health related QOL.

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**Effectiveness of Yoga for Menopausal** Symptoms and Quality of Life

# TAI Shiu-Hao, HUANG Hui-Mei, CHEN Mei-

## Introduction

Yoga is often advised for women as adjuvant therapy for menopausal symptoms. This study was aimed at investigating the effectiveness of yoga on relieving menopausal symptoms and improving health-related quality of life.

# Purpose/Methods

This study adopted a quasi-experimental design with purposive sampling 30 subjects who meet the inclusion criteria; these subjects were alternately assigned to the experimental group and the control group. The experimental group was given yoga classes twice a week, in 90-minute sessions, for a period of twelve weeks. The control group was to maintain normal daily activities. Both groups completed the pretest and post-test Questionnaires, including "Greene Climacteric Scale" and "SF-36 Taiwan Version of Quality of life Scale".

### Results

The pre-test data on demographics, menopausal symptoms, and quality of life of the two groups are homogeneous (p > .05). For menopausal symptoms, changes in psychological symptoms and the overall wellbeing are significant (p < .05). For the quality of life, only the general health level has significant differences (p < .05). Changes in the other categories of health-related quality of life, though all higher than the control group, were not significant (p > .05).

# Conclusions

The results from this study provide an evidence-based treatment for women with menopausal symptoms. We expect that the outcome of this study will help women to minimize their menopause discomfort, improve their quality of life, and establish a healthy lifestyle.

# Comments

Menopause is a process every woman will go though. It is an important issue for health care workers. Medication may carry some side effects. Maintaining a healthy life style is very important for menopausal women, especially regular exercise. From this study, yoga is very effective alternative to hormone therapy for post menopause discomfort.

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Outcomes of the Year-End Event for the Elderly Living Alone in Shilin **District, Taipei City** 

# YEN Juo-Fen, YUAN Lu-Fang, HUANG Chiu-Yu

# Introduction

According to statistics, there were 352 elderly persons living alone registered in Shilin District among which low-income elderly persons living alone accounted for 33.23%. Besides drawing up a scheme to take care of elderly persons living alone in the community, the center has its nursing staff carrying out home visits regularly. In 2013, the center has even brought these elderly persons out of their homes and into the community, keeping them company as they shop for items that they truly need for the Chinese New Year.

# Purpose/Methods

1.The Shilin District Health Center invite each elderly person living alone, either by phone or in person, to participate. At the same time, businesses and schools in the community were called on to volunteer. 2. Handicapped elderly persons were picked up and were accompanied by volunteers, and afterwards, their purchases were delivered to their homes. 3. The nursing staff of Shilin District Health Center assisted in health screenings and evaluations, such as the measurement of blood pressure, AD-8 and BSRS-5 assessments, and the Barthel scale, to achieve early discovery, diagnosis and treatment.

### Results

1.64 low-income elderly persons living alone participated in the activities,104 students served as volunteers,and 54 community volunteers rendered their services. 2.Mr. Wang,one of the participating elderly who has been using the same belt for the past 30 years,said that,thanks for such an event,he got to pick a new belt and that it was great to have a volunteer giving him ideas. 3.The event was covered by 2 print media,3 electronic media,and the Yang Ming Shan CATV news crew.

# Conclusions

Through the event, the social participation of elderly persons living alone and their interaction with other people have been increased, living needs of elderly persons living alone have been met.In addition, the sense of respect for the elderly has been enhanced, businesses and people in the community have been brought along to participate voluntarily and developing a sense of community closeness for sustained participation in events for the disadvantaged held in the community.

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Beitou Health Promotion Association: Implementation Performance of the Nation's Pioneer "Courtesy to Senior

# Citizen Program for Bus Drivers and AED on Buses"

# LIN Hui-Ping, LIN Shiang-Jiun, LIANG Chu-Hsiang, LIAO Hsiu-Yuan

# Introduction

In provision of a safe and friendly environment for senior citizens, the association organized a focus group discussion with scholars and the local senior citizen representatives primarily for the promotion of a safe and comfortable commuting environment for senior citizens. Moreover, the association organized the public and private sectors, hospitals, corporations, and bus lines for the implementation of the Courtesy to Senior Citizen Program for Bus Drivers and CPR + AED on Buses health care program.

# Purpose/Methods

Through the intervention program, 30 bus drivers were arranged to experience the physiological difficulties that come with aging and to receive first-aid training, and 34 low-floor buses were procured; moreover, buses plying the mountain road routes are authorized to stop and accommodate hailing passengers, and corporation-donated 8 AED units were installed on buses with "AED posters" being posted on the bus sides and backs. Thus, a "movable AED vehicle" now plies the Beitou streets and scenic spots every 30 minutes.

# Results

After the implementation of the intervention program, a comparative study between the statistics of the first-half of 2013 and second-half of 2012 showed a drop of 28.4% in passenger complaints and increase of 60% in appreciative feedbacks. The service quality improved dramatically to the benefit of 3,234,974 Beitou residents and tourists.

# Conclusions

The nation's pioneer Courtesy to Senior Citizen Program for Bus Drivers and AED on Buses provided immediate life safeguard to the public as well as safe and convenient commuting service. The program was well-received and highly commended by the media and the residents. This model shall serve as a reference for policy making and emulation of other districts and cities.

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Session P2.5: Promoting cardiovascular and cerebrovascular health



# The lifestyle of Romanian adults who have relatives with cardiovascular diseases

# LOTREAN Lucia Maria, URSU Daniel, AILOAIEI Roxana, POPA Monica

## Introduction

The lifestyle has an important role in the prevention of cardiovascular diseases (CVD).

# Purpose/Methods

The purpose of this study is to assess several lifestyle components-active and passive smoking, alimentary habits, involvement in physical activity-as well as the body-mass index of Romanian adults who have patients with CVD in their family. The study was performed in 2011 in 2 hospital settings from Cluj-Napoca, Romania. It involved 180 adults who had relatives with diagnoses of CVD and visited these relatives in the hospital during their stay there for checks or treatment. Anonymous questionnaire assessing several lifestyle behaviors were filled in by all the participants; their weight and height were also measured and body-mass index was calculated.

## Results

The results show that one quarter of the subjects were smokers (smoked in the last week), but one out of three smokers declared that they would like to quit smoking in the next 6 months. Exposure to passive smoking in the last week in public places was declared by 29.3% of the non-smokers, while 12.5% of the non-smoking subjects were exposed to passive smoking in their own house in the last week. The majority of the subjects did not meet the recommendations for eating at least 5 portions (approximately 400 g) of fruits and vegetables daily and one quarter of the subjects declared that they do not perform at least 30 minutes of physical activity each day. A percentage of 58.3% of the adults had a BMI higher than 25.

# Conclusions

Health care professionals should periodically assess body composition and lifestyle components of Romanian adults who have relatives with CVD, in order to identify unhealthy behaviors and offer them personalized education and counseling. Moreover, comprehensive educational programs for this target group are needed in Romania.

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The educational strategies to promote the fight against Sudden Cardiac Death

# BICEGO Livia, BUZZAI Patrizia, BOGATEC Elisa

# Introduction

Sudden Cardiac Death is still one of the most important health problems worldwide. The figures are approximately 500.000 people who are affected each year from cardiac arrest (ACR) in Europe and 60.000 each year only in Italy . 70% of the ACR occurs in presence of witnesses who could start immediately Cardiopulmonary Resuscitation (CPR) . CPR is started immediately only in 15% of cases . The survival curves are clear: immediate CPR triples the chances of survival.

# Purpose/Methods

Local health public service (ASS1 Triestina) recognizes as its mission health promotion of individuals and communities, and it considers essential promoting the fight against MCI and spreading the culture of emergency health care in society. There are many initiatives organized by Centre for Corporate Training in the field of Basic Life Support and Defibrillation (BLSD) and First Aid aimed at raising awareness of public and private institutions with particular reference to the areas of law enforcement, education and sport.

### Results

From 1st January 2010 to 15th December 2013 nearly 2.000 persons have attended the training course BLSD. ASS1 Triestina has signed protocol for specific training activities in the field of BLSD and First Aid with police, firefighters and Coastguard of Trieste to improve the effectiveness of aid in event of ACR . All mentioned forces have defibrillators and are able to take effective action before the emergency call and awaiting the arrival of the ambulance with healthcare staff.

# Conclusions

The implementation of BLSD training at all levels and the widespread of emergency competencies out of hospital allow the perfect application of the Chain of Survival. This is internationally recognized as the best set of effective action to intervene in the case of ACR. Its application allows to efficiently utilize the waiting times of advanced rescue to reduce the risk of worsening clinical status and anoxic brain damage. in this way the patient prognosis improves significantly.

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Maintaining healthy behaviors in Acute Myocardial Infarction (AMI) patients through patient education and follow-up monitoring - Health promotion projects of 'Regional Cardio-CerebroVascular

# Center(RCCVC)' for management of cardiovascular disease

# KIM Hee-Sook, PARK Ki-Soo, LEE Hey Jean, LIM Young Shil, SHIN Ji-Young, SHIN Jae-Deok, PARK Hye-Kyung

# Introduction

The integration of health promotion into healthcare system has become a key agenda, since the UN and WHO Europe have driven various declarations, strategies, and action plans (e.g., "Health 2020" and "Preventing and control of NCD"). 'RCCVC'(which manages cardio-cerebrovascular diseases, mainly AMI and stroke) is similar to the second type among 4 types of HPH organizational approaches following the HPH standards (patient assessment and patient information and intervention), and provides educations and risk factor management services for preventing disease recurrence.

# Purpose/Methods

We aimed to evaluate the effects of patient education and follow-up monitoring(PE/FU) on behavioral changes in AMI patients. PE/FU was provided according to standardized written protocols(which were developed by RCCVC-network). PE was specified in the clinical pathway(CP) and PE/FU was performed by education coordinators (registered nurse) in the well-equipped education rooms established by government and RCCVCs funding. Improvements in behavioral change and adherence to drug were analyzed using 1,852 AMI patients' risk factor assessment data of 8 RCCVCs in 2011-2012.

# Results

Analyzed AMI patients were 64.5 years old on average. 70.7% were male. 47.0% were STEMI. 35.5% were smokers, 31.6% were alcohol drinker, and 30.9% were exercising regularly. The exsmokers at postdischarge-12-month who were ex-smokers at postdischarge-1-month were 87.1%. Those who responded that continued to stop drinking, to exercise regularly, and to have healthy diet until postdischarge-12-month from postdischarge-1-month were 66.8%, 75.4% and 81.8%, respectively. 64.6% were well adhered to drug at postdischarge-1-month and among those, 95.5% were maintained until postdischarge-12-month.

# Conclusions

The results of this study are intermediate outputs of PE/FU services of RCCVC's hospital-based disease management and show good examples of applying HPH standards. RCCVC systematically provides these services to all AMI patients using written protocols. Though these accomplishments are only outputs of past two years' efforts of RCCVCs, hereafter long-term effects of PE/FU on health outcomes (e.g., recurrence and mortality) could be evaluated through continuous improvement on process and performance of PE/FU program.

# **Comments**

Dear reviewers, Please select this abstract and give me an opportunity to introduce Korean model of HPH and related projects. Actually, this is the second time I submit an abstract. I attended the 21st HPH conference last year and presented a

'mini oral'. And I would like to participate to HPH conference annually to introduce and share our fruitful outcomes heartily. Thank you for reading this abstract. (I work in the Korea Centers for Disease Control and Prevention(KCDC), South Korea).

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# Follow up of Education for Self-help among Patients with Acute Myocardial Infarction

# LEE HeyJean, MOON Ji Young, PARK Young Kwon, LEE Jung Min, RHU Dong Ruel, HER Ae-Young, KIM Yong Hoon, KIM Hee Sook, LIM Young Shil

## Introduction

We developed inpatient and outpatient education programs to raise knowledge, awareness, and behavioral skills to practice self-help. Inpatient education is one-time person to person explanation about disease, medication, and post discharge lifestyle. Outpatient education is a six month program consisted of face to face monthly counseling and weekly telephone checkup for medication and lifestyle modification.

# Purpose/Methods

We analyzed 52 patients admitted in 2012 and completed 1, 3, and 12 month postdischarge follow ups. 42 patients did get only impatient education and 10 patients participated both inpatient and outpatient educations. We grouped patients who participated both educations as 'Both In & Out' and who participated only inpatient education as 'Only In'. We compared medication, smoking, alcohol, diet, and physical activity at the time of follow up according to groups.

# Results

Patients showed some differences by group. Smoking rate increased from 11.9% to 26.2% as follow up went on in 'Only In' group. But, it decreased from 20.0% to 10.0% in 'Both In & Out' group. For salt intake, the rate of taking very much kept from 9.5% to 7.1% in 'Only In' group. But, it decreased from 30.0% to 0.0% in 'Both In & Out' group. For medication, patients in 'Both In & Out' showed relatively higher compliance.

# Conclusions

For the patients who completed the outpatient education, we made an individual ceremony with doctors, nurses, and program developers. At that time, most of patients said "This program helped me to look into myself and make better life". We developed a six month outpatient education program and we asked patients to check themselves and decide what to do by themselves. It seemed helpful to make patients to enhance self-help and to keep better lifestyle.



### Comments

The patients with acute myocardial infarction need to take medication continuously and change lifestyle to prevent re-attack and other complications. Health behaviors are known to take six months to become a habit. Differences between patients who get only inpatient education and who get both in and outpatient educations are not statistically significant this time due to too small number of participants. It can be helpful to make counseling and telephone check up program to make patients to keep better sifestyle.

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# Lifestyle and self-management advice in hospitalized patients with chronic heart failure

# FARKAS Jerneja, HODOSCEK-MAJC Lea, STEVANCEC Darja, LAINSCAK Mitja

# Introduction

Patient education and self-care behavior are complimentary to pharmacological treatment in reducing health care costs and improving outcomes in patients with chronic heart failure (CHF). Few studies have assessed extent of counseling and written advice received during hospitalization due to deteriorated CHF. This study aimed to evaluate lifestyle and self-management advice in patients with CHF at discharge.

# Purpose/Methods

This population based survey screened all discharges and deaths from a community hospital during 2001 to 2003. Final sample included 638 patients (73±10 years, 48% men, 74% NYHA class III) who were discharged alive and had a diagnosis of CHF according to International Classification of Disease 10. Discharge letters were reviewed for lifestyle and self-management advice.

# Results

At discharge, the following advice was given in discharge letters: limit the fluid intake (24%), weight regularly (18%), adjust diuretics (12%), advice on dietary salt (9%) and fat (8%), and on physical activity (5%). Overall, 394 (62%) patients did not receive any advice in the discharge letters. Age (p=0.001), gender (p=0.003), left ventricular ejection fraction - LVEF<40% (OR 1.72, 95% CI 1.05-2.85), and treatment with ACE inhibitors (OR 2.04, 95% CI 1.00-4.17.

# Conclusions

Many hospitalized patients with CHF (62%) are discharged without any written lifestyle and self-management advice. Limitation of fluid intake was most frequently advised and regular weighing showed and association with lower mortality. Advice

was more likely given by cardiologists and to younger patients and those with systolic dysfunction or receiving ACE inhibitors.

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# Nursing health promotion interventions may reduce a cardiovascular risk factor score in Rheumatoid Arthritis patients: a clinical case

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# Introduction

Rheumatoid Arthritis (RA) is an inflammatory disease which has cardiovascular morbidity and mortality associated. EULAR recommends routine cardiovascular risk (CVR) assessment and management in these patients. The first principle of management is to assess and control all components of total CVR. Hence, behavioural lifestyle changes such as maintaining correct body weight, smoking cessation, exercise and a healthy balanced diet, are the basis of CV prevention. In this process, the nurse plays a key role in educating and planning healthy strategies

# Purpose/Methods

Our clinical case is a 50 years old man with long-term RA, smoker of 20 cigarettes daily, inactive and overweight with baseline parameters of Body Mass Index (BMI):27,4; waist circumference:95cm; systolic blood pressure (SBP):138; total cholesterol(TC):6.9mmol/L;HDL:1.14mmol/L;LDL:4.82mmol/L;Trig lycerides:2.07mmol/L with a SCORE of 3% on 14.03.11. We used the Systematic Coronary Risk Evaluation instrument (SCORE) to calculate the CVR. The nursing assessment method used was Virginia Henderson's need theory based on NANDA (Nursing Diagnoses), NIC (Nursing Intervention Classification) and NOC (Nursing Outcomes Classification).

# Results

After 4 visits of nursing interventions based on healthy lifestyle counselling and behavioural changes towards to a balanced low fat diet, cessation of smoking and moderate exercise of 30 minutes per day, on the 27.11.12 the patient presented Body Mass Index (BMI) of 25,9; Waist circumference:92cm; SBP:132; TC:4.7mmol/L; HDL:1.5mmol/L; LDL:2.40mmol/L; Triglycerides:1.4mmol/L with a SCORE of 1.5%. This meant that his CVR score was reduced from 3% to 1.5%. NANDA, NIC and NOC are presented in table 1.

# Conclusions

A nurse-led care intervention aiming at improvement of CVR factors may make patients with RA to change their behaviors in terms of stopping smoking, controlling their weight, having a balanced low in fat diet and practising routine exercise. This may suggest that these strategies should be taken into account as an essential part of the non-pharmacological treatment in these patients, being a nursing input necessary in patients with RA at this stage

### Comments

There are several studies in which nurse-led CVR factor interventions provided improvements in CVR reduction and/or targets in people with diabetes, symptomatic vascular diseases and stroke. These interventions derived from well-known several theoretical influences in health promotion and disease prevention which are focused on increasing the self-efficacy and reaching self-management and empowerment of the individual. However, studies about the evaluation of efficacy of nurse-led care prevention interventions to decrease CVR among RA patients are limited.

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Nurses intervention on respiratory and cardiac chronic disease reduce the number of visits at accident – emergency and hospital admission in our primary care centre.

# VALLEJO GARCIA Esperança, MOLINA ROJAS Julia, VILLARREAL BENITEZ Dolores, MENDOZA BORRAS Josepa

# Introduction

To Describe and analyse the profile of patients with chronic cardiac and chest conditions that required recurrent emergency appointments or admission in a Hospital of reference within the Primary Care Centre Reus-5. The nursing intervention and following up of patients in Primary Care reduces the number of visits at A&E and hospital admission avoiding instability of the chronic process of these patients.

# **Purpose/Methods**

Descriptive, retrospective, cross sectional study. Considering as a frequent visitor every patient that achieves more than two hospital admission within a year and more than three A&E visits. Study population: Patients over 15 years old visited and hospitalized at the Hospital of reference during 2011 and 2012 assigned at the PCC Reus-5 (28.000hab.) Methods: Diagnosis revision of the hospital and A&E discharge report in the Computerized Medical History of Sagessa Group (H-Net). Comparing the number of visits in 2011 and 2012. From the

patients detected in 2011, a nursing intervention and patient follow up of hospital discharge, either at home or in the PCC was performed. The nurse's management intervention consisted in performing a planning before the hospital discharge, a domiciliary visit or a PCC visit after the hospital discharge and a telephone follow up as needed to control the therapeutic compliance and identification of signs of complication.

# Results

Total population of frequent visitors with chronic cardiac or respiratory pathology: N = 26 Patients. Age average: 80 years old for women and 76.72 years old for men. Gender: Male 69.23% Most prevalent pathologies: COPD 61.54% followed by Chronic Heart Failure 38.46% Exitus7.14% in 2012. Decrease in number of visits from 2011 to 2012: -51.97%

# Conclusions

Predominantly the number of men and higher average age than for women, being more prevalent respiratory than cardiac disease. The implementation of the case management program, along with the exclusive Nursing Home Care, has been an improvement in the care of these patients, reducing the number of emergency visits and hospital admissions. That has also contributed on a better coordination with the hospital, ensuring continuous care of the patient receiving a higher level of satisfaction. It has been noticed that patients in the last year of life achieve more emergency appointments. The professional management of every case coordinated with the continuous assistance and proactive nursing intervention, can prevent repeatedly emergencies in patients with these pathologies at the last term of life.

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# The lifelong wellbeing pathway for a healthy heart

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# Introduction

In Finland the need to develop health promotive services is acknowledged as part of social sustainability. Health promotion requires the cooperation of different actors and a consideration of user perspectives to be able to offer services responding to the user needs at the right time and place. To guarantee a seamless service path for the individual, a regional wellbeing pathway description is needed. Besides public services, also the private and the third sector services need to be described.

# Purpose/Methods

Our purpose is to outline the wellbeing pathway of a person from pregnancy to old age from a health promotive perspective. The focus is on heart health in one case area in southern Finland. The



pathway is based on 15 interviews and one workshop with the local public health care provider and two thesis: a case study of two aging persons with a heart disease and two focus group interviews and three workshops to the personnel of two care organizations.

### Results

The interviews sketched a picture of the present state of health promotive services in the public health care provider. According to the interviews cooperation with other wellbeing actors were quite irregular. Even the services available in other units in the same organization were often unfamiliar, let alone the services of other organizations. The workshops showed that face to face meetings are important in developing collaborative services. The case study gave a voice also to the local residents and their needs.

# Conclusions

The pathway forms the basis for future development of sustainable services in the region. It combines the perspectives of the service providers and service users. The more detail there is in the description the easier it becomes to combine the services available for different needs. Also service gaps and overlap are easier to notice. With technological solutions the pathway can be turned into practical tools for the individual or care personnel to design individual service paths to better support wellbeing.

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# An integrated approach to cardiovascular risk assessment

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# Introduction

Recent publications on cardiovascular diseases (American longitudinal studies [1,2] and the Italian "Progetto Cuore" [3]) confirm that the early adoption and maintenance over time of a healthy lifestyle contribute to a low individual risk profile over the lifetime. Therefore, a project has been developed for an integrated approach to cardiovascular risk in male subjects aged 45 and female subjects aged 55 actively called by the nurses, along with the general practitioners, of the primary care districts/health care centres.

# Purpose/Methods

The recruited subjects undergo an interview to collect information on health determinants. Based on the data the individual health profile is identified and risk score assessed using the "Cuore" chart. During a second interview, the subjects without behavioural risk factors are given advice on healthy lifestyles. The subjects with risk factors are offered counselling to

positively orient their lifestyle and the connection with the network of support to change centres. These people are monitored actively with one follow-up for reinforcement and assessment of compliance to the program proposed and a complete reassessment after one year.

### Results

In the first implementation stage of the project 12 facilities were involved including primary care districts and health care centres with the participation of 185 practitioners. There were 3841 eligible subjects and by July 2013 97.1% had been actively called and 62.3% adhered to the initiative. The health profile was defined for 1553 people and 858 were given advice on how to make their lifestyle healthier. The reassessment after one year is currently underway.

# Conclusions

The initiative is innovative since it promotes the integration of prevention activities in primary care and is a chance to perform proactive prevention actions on specific targets. It allows to acquire greater professional expertise. Participation in the project was good even if differences could be found in terms of the call method. It will be necessary to improve and reinforce the networking of all the resources active throughout the local area (health authorities, local bodies and the non-profit sector).

### Comments

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Follow up of Patient Education
Program to Support Self-help in Acute
Stroke

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Introduction

We developed inpatinet and outpatient education programs to raise knowledge, awareness, and behavioral skills to practice self-help. In patient education is one-time person to person explanation about disease, medication, and post discharge lifestyle. Outpatient education is a six month program consisted of face to face monthly counseling and weekly telephone check up for medication and lifestyle modification.

# Purpose/Methods

We analyzed 151 patients admitted in 2012 and completed all the 1, 3, and 12 month follow ups after discharge. 132 patients did get only inpatient education and 19 patients participated both inpatient and outpatient educations. We grouped patients who participated both educations as 'Both In & Out' and who participated only inpatient education as 'Only In'. We compared medication, smoking, alcohol, diet, physical activity, and quality of life at the time of follow up according to groups.

# Results

Patients showed some significant differences. For the fat intake, rate of taking no saturated fat increased to 76.5% in 'Only In' whereas it kep 100.0% in 'Both In & Out' group. The rate of no problem in self-help increased to 64.4% in 'Only In' whereas it increased to 94.7% in 'Both In & Out'. The rate of no problem in daily activities increased to 56.8% in 'Only In' whereas it increased to 94.7% in 'Both In & Out'.

### Conclusions

Patients showed statistically significant difference in fat intake. There was no significant difference in medication, smoking, alcohol, and physical activity. For quality of life, patients who participated both of inpatient and outpatinet education showed better status in self-help and daily activities. We developed a six month outpatient education program and we asked patients to check themselves and decide what to do by themselves. It seemed helpful to make patients to enhance self-help and to keep better daily life.

# Comments

The patients with acute stroke need to take medication continuously and change their lifestyle to prevent re-attack and other complications. Health behaviors are known to take six months to become a habit. It can be helpful to make counselling and telephone check up program to make patients to practice self-help and keep better daily life.

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The Effect of Discharge Planning on Acute Stroke Patients

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# Introduction

In 2012, cerebrovascular disease was the third leading causes of death in Taiwan. According to a medical center, the probability to recover independence of daily lives for one month as 55%, for three months as 66%, and for six months as 58% after stroke. Only one third of the stroke patients can live independently while the others were disabled and required assistance. Discharge planning combine professionals, patients, families and integration of medical, get continuity and complete of high-quality care.

# Purpose/Methods

The effectiveness of acute stroke in patients accepted after discharge planning intervention./ We use the screening scale to evaluate admitted Neurology patients in a medical center in southern Taiwan from January to November in 2013. Inclusion criteria as high risk patients and screening score more than 6. Then, team resources discussion, health care, transfer to case manager to settle down discharge life and telephone follow up after discharge. We use questionnaire to evaluate satisfaction to analysis the effect.

### Results

In 2013, 631 stroke patients were admitted, 176 (27.8 %) among them were enrolled with 124 (70.4 %) questionnaires received. The result reveal satisfaction to overall discharge planning as 100%, to information of discharge planning offered by nurses as 100%, to disease explaining and choice of treatment as 99.4%. Therefore, our doctors need more improvement in communication and treatment.

# Conclusions

The overall satisfactory rate was 100%, implied the significant assistance for acute stroke patients. Such service help shorten hospital stay and promote them to join the upcoming "post-acute stroke care plan".

# Comments

Discharge planning offers continuous care after discharge. This year, the National Health Insurance Agency is promoting the "post-acute stroke care plan". Hospitalized six weeks to three months of active rehabilitation and grasp the golden period of rehabilitation to improve quality of care. We hope more Regional Hospital to participate and provide services to remote areas.

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Explore the factors of affecting stroke patients with total joint rehabilitation exercise

TSENG Meng-Chuan, CHANG Hsiao-Chien, LIU Yi-Fang



# Introduction

The cerebral accidents is the third among the top ten leading causes of death in Taiwan. The patients who had limbs paralysis after stroke, ROM rehabiltation is necessary for the sake of keeping the angles of joints, the recovery of activity. However, the insufficient recognition of ROM activity among clinical nursing staffs may lead to low performance rate of ROM activity among the stroke patients. After the discussion of the reasons and the improvement, the performance rate was from 58.1% up to 90%.

# Purpose/Methods

The purpose of this study was to explore the knowledge of ROM in clinical nurses and related factors which would affect those performance. This study was a Cross-sectional study. The total of 17 nurses replied the questionnaire.

## Results

The results of this study showed that the average recognition accuracy of ROM was 54.9%, including a lower rate of cognitive project as "the number of joint ROM", "execution frequency, time and frequency," "complications".

# **Conclusions**

Based on the results we develop "performance standards of ROM" and "Teaching CD-ROM of ROM". After two tools are used, the correct recognition rate from 54.9% to 95.1%, the perform rate of ROM for stroke patients also from 58.1% up to 90%.

### Comments

Making teaching aids can help to improve the implementation rate of ROM; But a growing number of foreign caregivers has become the main caregivers in Taiwan, so we recommend the version can be made in multiple languages to cater to the actual demand.

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# Hypnotic music to improve stroke rehabilitation cases of sleep quality

# **PAN Chuen Hua**

# Introduction

The patients with stroke because of the disease and environmental restrictions, leading to sleep disorders, although there is still an oral sedative hypnotic at night there is still has daytime sleepiness and lethargy situation, its poor sleep quality. Therefor pituitary gland can not release a lot of growth hormone that can promote the protein metabolism help the body tissue growth and repair, thereby affecting the progress of the disease and reduce the effectiveness of rehabilitation.

# Purpose/Methods

Purpose:To investigate the effectiveness of hypnotic music on rehabilitation patients with insomnia in rehabilitation ward. Methods: I am to administrate a pretest and posttest research design in this study. The research subjects are to be recruited from the rehabilitation ward of a area hospitail in the mid-Taiwan who are hospitalized for more than 48 hours. Patients are randomly assigned to the experimental group can expressed the phenomenon of sleep suitation by himself and followed up for 3 days and 6 days. The Athens Insomnia Scale is scored and movement measured using wrist tracker on the 1st and 3rd day for the group1. Patients in the experimental group1 are administered with Hypnotic music on the 2nd 3rd, 4th and 5th day. The Athens Insomnia Scale is scored and movement measured using wrist tracker on the 1st and 2nd day for the experimental group2.tered pretest, Patients in the experimental group1 are administered with Hypnotic music on the 3rd, 4th and 5th day .Post tests for Athens Insomnia Scale and movement are conducted on 5th and 6th day

## Results

The results showed that patients in stroke rehabilitation which use hypnotic sleep quality music before and after the intervention a significant difference P <.05 and reached statistical significance,

# Conclusions

It is recommended to use the hypnotic music to improve sleep quality of hemiplegic stroke patients and promote their rehabilitation efficacy

# Comments

The paper compilation of relevant literature to explain the physiological sleep and the sleep factors affect stroke patients to development the manner.for stroke patients there is sleep disturbance clinical nursing care.

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# The Holistic Healthcare of Case Management Model with young stroke patients

# HUNG Yu-Ling, HOU Ya-Ping, HSIEH Sun-Wung

# Introduction

Stroke ranked number three in top ten causes of death from the statistic data of Taiwan Ministry of Health and Walfare in 2012. Young stroke (age ranging from 15 to 45) comprised 5% of stroke population. The mortality rate of young stroke raised from 18.5% in 2010 to 20.1 % in 2012. due to the consequences of long-term disability in young stroke, it became the most concerning issue in physical and mental health.

# Purpose/Methods

We provided the service to young stroke patients by participant observation , empathical communication skills and overall assessment. Young stroke patients had individualized rehabilitation programs and health education from multimedia. Nutritionists gave DASH diet guidance. Medical teams supplied care skills and social welfare information to caregivers. Stroke case manager continously followed up the cases and provided empathical care to them after their discharge.

# Results

We provided holistic healthcare to young stroke patients by means of case managment model. To overcome the extremities disability, we encouraged young stroke patients to cultivate "empathy" mind to face and adjust for the sense of emptiness caused by limbs weakness, to feel free from different views from others, to build up the partnership with healthcare team and to reintegrate with general population in the society.

## **Conclusions**

Our stroke team promoted the concept of case management and provided diversified as well as individualized care to each case. We highlighted the necessarity for young stroke patients to participate in stroke friendship groups, to improve the self care ability, and to have proper employment after disability. The role of social functional change was also important.

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To Improve Seniors Health Status from Suffering with Cerebrovascular Disease through Acupuncture of Chinese Traditional Medicine

# FANG Chien-Liang, HSUEH Wen-Che, WANG Tsai-Tan, HUNG Pei-Hsiu, CHANG Yucheng, SHIH Yun-Wen

# Introduction

In response to the medical needs of elderly disable residents in long-term care centers and to provide a proper medical treatment for the poor transport facilities area. The Traditional Chinese Medicine Department of Ditmanson Medical Foundation Chiayi Christian Hospital implemented the project of "Traditional Chinese Medicine Outpatient Care Plan for Cerebrovascular Disease", and collaborated with neighboring care centers in helping patients whom been suffering with cerebrovascular disease and met the condition of within two years for Chinese medicine and acupuncture treatments.

Purpose/Methods

1. The proposes of acupuncture treatments were trying to improve patients' neurological function, elevate the quality of daily life, and reduce medical expenses. 2. The Traditional Chinese Medicine physicians were initiative to go to care centers twice per week, Tuesday afternoon and Friday morning, to provide acupuncture treatment for the patients. 3. To evaluate the treatment progressing once every two months by Barthel Index and the NIHSS scales.

### Results

1. The main target patients had been diagnosed suffering from cerebrovascular disease (cerebral infarction, cerebral hemorrhage) within two years, which with the symptoms of hand/foot partial paralysis, languages impairment, dementia, and unconsciousness. 2. There were a total of 71 clinical medical service times and a total of 773 treatment person-time from April 30th 2013 to December 31st 2013. About 60 times of progressing assessments had been applied by Bathel Index and the NIHSS scale

# Conclusions

The average age of treatment patients was 78.13 years old, the eldest age was 89-year-old and the youngest of patient was 61-year-old. The disease classifications were cerebral artery occlusion, cerebral thrombosis, cerebral hemorrhage, acute cerebrovascular disease. The treatment project lasted eight months, and the main purpose was not only to improve patients' health status, also to reduce the indirectly wastages, such as the costs and time which the patient caregivers put into.

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# Session P2.6: Improving clinical care for diabetes and the metabolic syndrome

Shared and unique factors between metabolic syndrome and mild psychiatric disorders: A longitudinal population-based study initiated by Landseed Hospital, Taiwan

# HSIAO Tien-Mu, LIEN Mei-Huei, YEH Chih-Jung, YANG Hao-Jan

# Introduction

Cardiovascular disease (CVD) and depressive disorders are the most two harmful problems for human health in the 21st century. The relationships between the two diseases are complicated, yet the mechanisms are not clear so far. As metabolic syndrome (MS)



and mild psychiatric disorder (MPD) are good indicators for CVD and depressive disorders, respectively, this study aims at clarifying shared and unique factors between MS and MPD by using the 8-year follow-up Landseed cohort.

# Purpose/Methods

A total of 5712 community residents were followed-up and analyzed. The point prevalence rates of MS and MPD and their comorbidity rate were estimated by each wave. Three multiple logistic regression models, with each treating MS, MPD, and comorbid condition as dependent variable, were compared to identify the shared and unique factors. Variables specifically correlate with MS or MPD are defined as unique factors; whilst those correlated with both MS and MPD or with comorbid condition as shared factors.

# Results

The point prevalence rates of MS ranged 13.83-14.26%, MPD ranged 17.17-19.60%, and comorbidity rates 2.75-3.07% in three waves. Educational level and weekly exercise frequency are shared factors of MS and MPD. Moderate frequency of weekly exercise protects the occurrence of MS and MPD. Moderate personal income is a unique protective factor for MS; and male and abstaining from alcohol use are unique protective factors for MPD.

# Conclusions

A balanced life style is beneficial for both physical and psychological health. Specifically, there are no dose-response effects between weekly exercise frequency and MS or MPD. Too much is as bad as not enough. It is important for clinicians and health educators to educate community people to engage in exercise in a proper way to improve public health.

# Comments

Previous studies concerning this topic were conducted usually based on small and hospital-based samples in western societies. Findings of this study are derived from a long-term and large scale cohort from Taiwan, which may add to the literature valuable information on improving public health from cross-cultural perspectives.

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Prevalence and risk factors of metabolic syndrome among middleaged and older community residents in Taiwan

LEE Yi-Chen, CHEN Tsung-Po, LAI Hsiu-Yun

Introduction

As the prevalence of metabolic syndrome is rising in Taiwan, the community hospital plays a primary role in providing health promotion services. The aim of the study is to obtain information about prevalence and risk factors of metabolic syndrome in the community.

# Purpose/Methods

We conducted a cross-sectional study in participants who were involved in the community health promotion service in Hsinchu area from January to June, 2013. Demographic data, anthropometric measurements, and comorbid diseases were collected. Fasting plasma glucose, lipid profile were measured after 8 hour overnight fasting. Metabolic syndrome was defined by the National Cholesterol Education Program Adult Treatment Panel III Criteria modified for Asians. The association between metabolic syndrome and other risk factors was assessed using multivariate logistic regression.

# Results

There were 67 men and 393 women participated in the community health promotion service, with a mean age of 56.7±9.5. The prevalence of metabolic syndrome was 18.3 %. Female sex, older age, and lower education were significantly associated with metabolic syndrome (Odd ratio [OR] 7.99, 95% confidence interval [CI], 4.38 to 14.55; OR 2.8, 95% CI 1.55-5.19; OR 1.87, 95% CI 1.09-3.21).

### Conclusions

Metabolic syndrome is an important public health issue. Our study provides essential information about the risk factors of metabolic syndrome in the community. Further interventions for high-risk groups warrant consideration.

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# Frequency and predictors of hypoglycemia in insulin-treated patient with diabetes

# **WU Fei Ling**

# Introduction

Achieving optimal glycemic control is an important health goal for people with diabetes. Intensive insulin treatment increases the risk of hypoglycemic episodes; however, effective in preventing and delaying the long-term complications related to microvascular. Hypoglycemia is common in diabetes patients and has been found to be associated with an increased length of hospital stay and higher mortality. Beyond, the hypoglycemia can result in cognitive dysfunction, coma, seizure, injury to the patient or death. Experiencing hypoglycemia may increase fear and decreases overall quality of life and deters the pursuit of diabetes self-management.

# Purpose/Methods

Our purposes were to calculate the population-based incidence of hypoglycemia, and to identify risk factors for developing recurrent hypoglycemia in diabetic patient with insulin treatment. The purposive sample of 230 participants was recruited from the metabolic clinics of medical center and regional hospitals in north Taiwan between June, 2010 and June, 2011. Eligibility criteria included aged 18 years or older, had been diagnosed with type 1 or type 2 diabetes for at least one year, and receiving insulin injections. Data were collected in participants with self-reported on the severity and frequency of hypoglycemic episodes in the 6 months prior to the survey, with severity defined as moderate (some interruption of activities), severe (assistance of other or medical attention). Statistical analysis employed SPSS 16.0 for Windows software package, and analytical methods included descriptive statistics, Mann-Whitney U test, Kruskal-Wallis test, and Poisson regression.

# Results

Most of the 230 subjects of this study were males, married, unemployed, living with others that had been diagnosed with type 2 diabetes; 53.9 % of these subjects had a high school education or above; average age was 48.62 (SD = 17.50) years; mean duration of insulin treatment was 7.53 years (SD = 7.13); mean HbA1c was 8.64 (SD = 1.88); had experienced a total of 3,999 hypoglycemic episodes in the previous 6 months (an average of 665.5 episodes per month). The main findings were as follow: nine critical factors (male, living with others, unmarried, low education level, employed, type 1 diabetes, long insulin treatment period, only using insulin injection, and low value of HbA1c) in predicting an increase in the frequency of hypoglycemia.

# Conclusions

In this survey of hypoglycemia in insulin-treated patient with diabetes, had experienced an average of 665.5 episodes per month. Thus, understanding people with diabetes predictors of hypoglycemia is a necessary. This study can help health care professionals develop educational programs to improve hypoglycemia self-management.

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# Effectiveness of periodontal screening for diabetic patients in a central Taiwan hospital

# LIN Kuanyi, SU Shihli, KUO Jengfu, TU Shihte

# Introduction

Periodontal disease is common among diabetic patients. At our hospital, we have attempted to increase periodontal screening by including dental examination in our initial and annual evaluation

of diabetic patients, distributing oral health educational materials, and establishing a periodontal screening station next to the outpatient clinic.

# Purpose/Methods

The purpose of this study was to evaluate the effectiveness of periodontal screening program from August 2012 to February 2013 in a community hospital in Taiwan. The screening program proceeded in three stages. In the first stage, patients were interviewed and referred to the dental clinic by telephone. In the second stage, patients were referred to the dental clinic following annual outpatient evaluation. In the third stage, patients were randomly selected and referred to the periodontal screening station.

# Results

2372 patients with regular follow-up in the hospital, 171 patients were included in the first stage. 79 patients were referred, of which 72 had periodontal disease(OR, 0.0708; 95% CI, 0.0496 to 0.1010). The second stage included 130 patients. 77 patients were referred, of which 72 patients had periodontal disease (OR, 0.0542; 95% CI, 0.0376 to 0.0782). The third stage included 333 patients. 148 patients were referred, of which 123 patients had periodontal disease (OR, 0.1357; 95% CI, 0.1041 to 0.1770)

### Conclusions

All three stages of the program effectively screened for patients with periodontal disease. Due to the limited human resource and time to carry out the program, OR failed to exceed 1, with stage 3 attaining the greatest OR. These findings support All three stages of the program effectively screened for patients with periodontal disease. Due to the limited human resource and time to carry out the program, OR failed to exceed 1, with stage 3 attaining the greatest OR. These findings support the practice of including periodontal screening into the initial and annual evaluation of diabetic patients. Periodontal screening and treatment rate may be increased by randomly referring patients to the periodontal screening station.

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An Investigation of Anthropometric Indices Used as Pre-diabetes Tests for Middle-Aged and Older People in Taiwan

# LIAO Yen-Chi, GUO Su-Er, CHEN Shu-Chuan, CHANG Yucheng

# Introduction

The purpose of this study was to examine the appropriateness of using the Asian cutoff points of the body mass index (BMI), waist



girth (WG), and waist-to-height ratio (WHtR) to predict the risk of diabetes (DM) for middle-aged and older people.

# Purpose/Methods

Purposive sampling was used for this study. From a database of people who received health examinations at a health center in Taipei in 2006, we sampled a total of 1,016 people, including 625 men (61.5%) and 391 women (38.5%) between 45 and 64 years of age. A glycated hemoglobin (A1C) value of  $5.7\%^{6.4\%}$  as a pre-DM criterion, and an A1C value of  $\geq 6.5\%$  as a DM criterion were defined in the study. The correlations between A1C and factors including gender, age, and anthropometric indices (Als) as well as ideal AI cutoff points and odds ratios (ORs) at an A1C of  $\geq 6\%$  for diagnosing middle-aged and older people with pre-DM were examined.

# Results

Overall, 108 people (10.63%) had an A1C indicating DM, and 312 people (30.71%) had an A1C indicating pre-DM. The number of men diagnosed with DM was significantly higher than that of women (DM:  $\chi$ 2 = 9.28, p = 0.002; preDM:  $\chi$ 2 = 13.37, p = 0.001). The logistic regression analysis results showed a predicted BMI cutoff point for an A1C of ≥6% of 21.86 kg/m2 for women, and 23.99 kg/m2 for men. The WG cutoff point was 75.96 cm for women and 81.73 cm for men. The WHtR cutoff point was 0.47 for women, 0.48 for men, and 0.48 for women and men combined. The ORs of DM (A1C of ≥6%) for factors such as age, BMI, and WHtR for women were as follows: an OR of 3.81 for ≥ 50 years of age ( $\chi$ 2 = 10.13, p = 0.002), 2.02 for a BMI of ≥ 22 kg/m2 ( $\chi 2 = 4.38$ , p = 0.04), and 2.5 for a WHtR of  $\geq$  0.47. ORs for men were as follows: an OR of 1.67 for  $\geq$  50 years of age ( $\chi$ 2 = 5.27, p = 0.02), 1.94 for a BMI of  $\geq$  24 kg/m2 ( $\chi$ 2 = 10.21, p = 0.001), and 2.31 for a WHtR of  $\geq$  0.48 ( $\chi$ 2 = 15.65, p < 0.001).

# **Conclusions**

The results indicated that Als used for diagnosing diabetes in people over 45 years of age in Taiwan should be lowered. Reducing the cutoff point of Als will facilitate early diagnoses and prevention of diabetes and its complications.

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# What matters in integrated health management for metabolic syndrome

# YOO Seunghyun, KIM Hyekyeong, CHO Han-Ik

# Introduction

Maintenance of metabolic syndrome(MetS) requires ongoing monitoring and reinforcement of lifestyle behaviors as well as increased awareness of MetS status. Integrated healthcare for MetS should involve strategic planning and coordination of medical tests and consultation, health education and counseling,

and environmental reinforcement. Health promotion hospitals(HPHs) need to come up with well planned and coordinated integrated care plans for lifestyle-related health conditions such as MetS

# Purpose/Methods

A series of semi-structured interviews were conducted with Korean adults with MetS, dietitians who provide MetS education and counseling at HPHs, and HPH administrators, respectively. A total of 50 respondents described: what happened and mattered in the process of MetS management; barriers and challenges; and HPH structure needed to facilitate integrated MetS care. Content analysis was performed on the interview data

# Results

Informing MetS status increased critical health awareness among participated adults. Personalized MetS information in both medical and behavioral aspects with affectionate care was key to continued MetS management. MetS management was an important health literacy issue, particularly to older adults. The integrated care was meaningful in terms of everyday health management, client-provider communication, and evidence building, yet resource intensive for HPHs in time, workload, personnel, health education contents and materials, and task coordination.

# Conclusions

Integrated care for MetS encompasses a number of issues: accurate medical examination, health communication and education, health literacy, client-provider relations, health professional capacity, intra-organizational coordination, and organizational system and support. HPHs should be ready and able to identify such issues and respond competently. For MetS management, health education content development, intra-organizational coordination and organizational support are requested. HPH should devise a plan to link the integrated care to community activities.

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# Hospital Clinical Health Promotion Team for Diabetes Care in Taiwan

# HSIEH Lan-Chi, YEN Yu-Chin, LIN Sun-Ling, WU Ya-Hui, WU Hwei-Mei

# Introduction

The cooperative attitude patients themselves, and a professional clinical team of metabolic doctor, dietitian and nurse, are both critical for diabetes blood glucose control and health promotion. This article would share the experience of such a team in a metropolitan hospital in Kaohsiung, Taiwan. As a reference, the hospital was rewarded as Diabetes Health Promotion Agency in

2005, and was continuously providing holistic diabetes and health promotion services for the past 8 years.

# Purpose/Methods

From October 2012 to September 2013, total 1884 diabetic patients received medical treatment from the hospital clinical team. 337 of the 1884 patients were continuously observed and consulted more than 6 months within this period of time. First, the patients were consulted by metabolic doctors, and then were educated by dietitian and nurse for health promotion. On the other hand, 3 professional conferences were held for improving the team member's specialty during the same period of time.

### Reculto

The HbA1c, LDL, and BP, of the 1884 diabetic patients were as follows: 49.7% (936 persons) HbA1c<7%, 40.2% (757 persons) HbA1c=7~9.5%, 10.1% HbA1c>9.5%; 36.9% (696 persons) LDL<100mg/dl, 63.13% LDL>100mg/dl; 29% (547 persons) SBP<130 and DBP<80mmHg, 71% SBP>130 and DBP>80mmHg. Within the following 6 months, 337 patients were observed and consulted. As results, 57.0% (192 persons) HbA1c<7%, 35.9% (121 persons) HbA1c=7~9.5%, 7.1% HbA1c>9.5%; 40.1% (135 persons) LDL<100mg/dl, 59.9% LDL>100mg/dl; 29.4% (99 persons) SBP<130 and DBP<80mmHg, 70.6% SBP>130 and DBP>80mmHg.

# **Conclusions**

Ever since was rewarded as Diabetes Health Promotion Agency in Kaohsiung, the hospital also bear the responsibility of extending diabetes care and health promotion as a member of the local medical care network. By the same time, the hospital diabetes clinical team actively consult the patients learn to enhance their self-care ability. Team experiences and models of care become more mature, and actively make contribution in Kaohsiung district for public holistic health care and health promotion in future.

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The clinical analysis of in-hospital diabetic control --- The experience of Inpatient Diabetes Care Team (IPDCT)

# LO Hsueh-Mei, LO Su-Huey, HSU Yuan-Nian

# Introduction

Diabetic population had higher hospital admission rate than nondiabetes. There were around 15~20% of inpatient had diabetes in our hospital, and the inpatient glycemic control was closely related to morbidity and mortality. In order to provide better glycemic control for all of the in-hospital diabetic patients, we had organized inpatient diabetes care team (IPDCT) since May 2011. The Task force for 2013 was to help the diabetes inpatient to achieve the recommended glycemic targets.

# Purpose/Methods

According to the joint statement of AACE and ADA, the recommendation of the inpatient glycemic targets was fasting blood glucose between  $100 \sim 140$  mg/dl, random blood glucose between  $100 \sim 180$  mg/dl, the IPDCT member would visit every diabetic patients to evaluate the diabetic medications and the glycemic control, and provide the professional suggestions to the health-care staffs. We would like to share of clinical experience of in-hospital glycemic control.

### Raculte

From May 2013 to Oct. 2013 there were 825 diabetic patients enrolled, the medications for glycemic control were diet only (9%), OADs (37%), OADs+Insulin (10%), Insulin only (43%), the achievement of recommended inpatient glycemic targets were 66% in diet control group with A1c 6.4±1.9%, 61% in OADs group with A1c 7.6±1.7%, 54% in OADs+Insulin group with A1c 8.0±2.1% and 42% in insulin treatment group with A1c 8.6±2.5%.

## Conclusions

Insulin was recommended for in-hospital glycemic control, but our data showed that only 53% of in-hospital diabetic patients received insulin injections and around 50% of patients received insulin treatment met the recommended glycemic targets. It reflect that the majority of health-care staffs are reluctant to prescribe insulin regiment. Once they give the insulin injections, the adjustment of insulin dose was not adequate

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# Session P2.7: Improving the quality of medical care for cancer patients

The Application of Data Mining
Techniques to Oral Cancer Prognosis

# TSENG Wan-Ting, CHIANG Wei-Fan, LIU Shyun-Yeu, LIN Chun-Nan, ROAN Jinsheng

# Introduction

The annual Taiwan male oral cancer incidence is ranked third in the world and the mortality is ranked fourth in cancer death of male patients in Taiwan. The increase of oral cancer is now considered an important public health topic. Understand the prediction factors of oral cancer will increase the patient's survival rate and can expand medical treatment in the future.

# Purpose/Methods



Two data mining tools, namely decision tree and artificial neural network, were used to analyze 426 cases of oral cancer collected between 2000 and 2008, and their performance was compared with that of logistic regression, the popular statistical analysis tool, to predict a patient's survival in 5 years. Cluster Analysis was also applied to identify the characteristics of patients who did not survive more than 5 years.

# Results

The prediction accuracy rates of the three methods were 95.77% for decision tree, 93.90% for artificial neural network, and 67.61% for logistic regression, respectively. Cluster analysis also discovered that those stage 4 patients whose also possess the following four characteristics are having an extremely low survival rate: pN is N2b, level of RLNM is level I-III, AJCC-T is T4, and cells mutate situation (G) is moderate.

# Conclusions

Both decision tree and artificial neural network models showed superiority to the traditional statistical model. However, as to clinician, the trees created by the decision tree models are relatively easier to interpret compared to that of the artificial neural network models. The important factors identified for oral cancer treatments could a reference material in health policy making, clinical management and the depth and broadness of cancer prevention and cure for oral cancer.

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# Oncology patient involvement in decision-making.

# MARTÍ-SÁNCHEZ Cristina, MONTOLIU-VALLS Rosa M., TORRAS-BOATELLA M. Glòria, RODRÍGUEZ-CALA Ana

# Introduction

Informed consent (IC) is a process in which in full possession of his faculties the patient gives their agreement to perform clinical studies, procedures, treatments and clinical trials. After receiving the optional sufficient, appropriate and comprehensible information, patients sign the IC in a freely, voluntarily and knowingly manner. The Catalan Institut of Oncology (ICO) is particularly sensitive about all the information processes and the way that physicians give the information for obtaining the IC.

# Purpose/Methods

The aim is to review the different variables in several IC documents to see if they meet minimal requirements requested by the law and assess the compliance of the different sections. A retrospective study was conducted in a sample of medical records of patients who received brachytherapy, radiotherapy, chemotherapy, transfusions and other treatment techniques during 2012 in the 3 hospitals of the ICO institution. A review of

the presence of recommended variables on the patients information sheets.

# Results

We have rated 48 different document models of IC. The inclusion of the recommended variables is greater than 90 % except in the case of variables "consequences of non performance" (16.67 %) and "the presence of treatment alternatives" (81.25 %). As for the fulfillment, we have rated 132 cases highlighting the limited formalization in " special risks " statements.

# Conclusions

The presence of requested variables in IC documents is high except for the information of "consequences of non performance" and "the presence of treatment alternatives" in the IC documents. We recommend to clinical directors of each center to present the results of the study to the staff in order to evaluate the introduction of the fields "consequences of not performing " and "alternative" in the documents and advise to complete all sections.

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# From Documental management to Clinical management: developing the oncologyc process in the clinical workstation

# TORRAS Maria Glòria, RODRIGUEZ Ana, GIL Juan Miguel, PLA Maria Jesus, LOPEZ Rosa, FAIXEDAS Delfí

# Introduction

ICT is a main driver in the transformation of our organizations. These technologies are oriented towards process automatization, information and communication. Therefore, it facilitates and improves coordination, service quality, clinical evaluation and patient's safety. One of the currnent challenges of our monographic and comprehensive cancer care centre, the Catalan Institut of Oncology (ICO) is facing it to develop the complexity of the oncologyc processes in its clinical workstation.

# Purpose/Methods

Objective: To harvest usefull clinical indicators from the clinical records on the workstation. Method: To build definite electronic medical records from data recorded during the cancer process on the workstation (SAP platform of the Catalan Health Institute) creating structured and exploitable forms, warning systems and automatic mechanisms of control through the process to provide usefull clinical indicators. Focusing only on breast cancer was

projected during 2013 and a multidisciplinary working team was trained using scrumb methodology.

### Results

We built a cancer process platform were all flows of information (referrals, requests for tests) and relevant clinical data (pathology results, extension study) of each patient, are recorded in the system in a structured way, allowing the collection of indicators on the degree of compliance of the clinical guidelines, on the toxicity and on the complications of treatment, service completions or delays, quality of care and patient safety.

# **Conclusions**

Given the complexity of the selected process, the project has required dedication and maximum commitment from the team. The consolidation of this project will have a huge impact as it spreads to other centers that share the SAP platform and other cancers. The system is providing an optimum environment to aid in clinical decision making, knowledge managment and evaluation.

### Comments

This project includes all agents in the process (hospitals, primary care and diagnosis image centers)

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# Health objectives: Integrated support services for neoplastic patients and their relatives

# BOSI Sandra, CHIARENZA Antonio, FABBRI Alessandra, RICCÒ Daniela, RONDINI Ermanno, RUOZI Corrado, SCALTRITI Laura, TAMELLI Marco

# Introduction

The improvement in quality of life and the life expectancy of neoplastic patients has led to the reinforcement of the therapy offered through programs that promote psychophysical wellbeing and the prevention of relapses, placing the focus on the empowerment of the patient and their family with respect to high risk lifestyles. There is now much literature indicating the extent to which the use of interactive techniques facilitates a change in behaviour relating to alcohol, smoking, diet and a sedentary lifestyle and contributes to their maintenance over time as protective factors for individual health.

# Purpose/Methods

WHERE: 10 Oncology Operating Units and LILT (Cancer Prevention League) of 5 regions in an inter-sectoral network WHO: Patients aged 35 to 60 with breast and colon cancer after

the end of the first treatment phase HOW: Target-specific intervention protocol: the oncologist informs, collects adhesions, advises, obtains informed consent and sends patients to the group program managed by LITL and Oncology. WHAT: Target-specific programs with a focus on lifestyles, relaxation and psychophysical wellbeing

### Results

Process indicators: Number of target-specific protocols activated Number of patients informed Number of patients taking part in the programs Outcome indicators:a) Agreed change target, b) Method of verification of target after one month (follow up at 1 and 6 months). Expected results: 100% target-specific protocols in the participating regions 100% patients informed 40% target patients taking part in the programs, 100% of which having agreed on change target; 30% partially reaching the target; 20% totally reaching the target

# Conclusions

The intervention, which was part of the actions of the national LILT, focuses on programs for healing and change in neoplastic patients, changes the disease experiences, promotes actions for network operators and the central role of the oncologist in the patient's rehabilitation. Oncology prevention cookery workshops with catering schools, relaxation, meditation and QJ Gong workshops, informative/educational programs on alcohol, smoking and preventing a sedentary lifestyle, change the priorities of the operators and the perception of patients on the meanings of care programs.

# Comments

In collaboration with the national group: "National Centre for Disease Prevention and Control" (Centro Nazionale Controllo e Prevenzione delle Malattie – CCM) and University of Modena and Reggio Emilia (University Representative: Eugenia Carluccio)

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# Oncological Patients: equity and communication

# GALEANDRO Maria, SACCANI Roberta, MONTEDURO Concetta, COLA Simona, LUGLI Morena, PICCAGLI Vando

# Introduction

Patients having recourse to the units belonging to Oncology and Advanced Technologies Department are mainly cancer patients. For this reason, the identification and improvement of communication ways capable of creating suitable clinical pathways must be particularly accurate. These aspects were thoroughly analysed and a particular clinical pathway was activated, as far as equity is concerned; this pathway involved, in



particular, the following units: Radiation therapy, Nuclear Medicine, Radiometabolic Therapy and Medical Physics.

#### Purpose/Methods

The study underlines communication methods capable of identifying not only the requirements of patients in need of treatment in the above mentioned units but also aspects of communication which could require improvement. At first, the global 2013 situation was analysed through Equality Impact Assessment. This instrument made it possible not only to identify actions to be undertaken but also to assess the impact of those actions in terms of equity for the whole population or for specific groups of people having recourse to the above mentioned units.

#### Results

Steps to be taken involved staff raising involvment, thanks to the creation of a dedicated educational path, the setting up or the updating of existing processes and possible new editions and translations of information leaflets on clinical pathways, according to the principles of Health Literacy. Some videos, to be seen in waiting rooms, were designed and partially carried out. They showed patients pathways, categories and ways of treatment of the most frequent pathologies. The role of cultural-linguistic mediators was strengthened.

#### Conclusions

Steps undertaken had a strong influence both on patients and staff, in terms of higher awareness, editing and writing new information leaflets capable of creating an effective impact, as far as communication is concerned. Equity and respect for differences can be achieved not only by spotting specific patients in need of peculiar actions but also by using proper models capable of accepting and respecting disabilities, which may affect everyone of us.

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Alliances between accredited and non-accredited cancer program hospitals for improving regional / rural oncology services in Taiwan

HUANG Chiao-Wen, WU Chien-Yuan, WENG Yih-Chyang, LIU Shih-Hua, HUANG Ming-Lih, CHANG Li-Lu, CHEN Chih-Yi, YEH Su-Peng, HSU Wen-Lin, CHEN Tzu-Ling

#### Introduction

Cancer program accreditation for hospitals in Taiwan has been evolving faster as others in the world. More than 80 percent of all newly diagnosed cancer patients in Taiwan are treated in 48 hospitals that are accredited by Health Promotion Administration

(HPA). However, rural area residents need to travel greater distances for healthcare and lack access and quality cancer care, especially long—term chemotherapy, radiotherapy and hospice care were still a problem and improving regional / rural oncology services is vital.

#### Purpose/Methods

In regards to health inequities, four rural counties including Miaoli, Nantou, Taitung, and Penghu (an archipelago) without accredited cancer program hospitals were chosen in 2012 by HPA which subsided 7 regional / local non-certified cancer treatment hospitals in three former-mentioned counties and Penghu County's Public Health Bureau to establish alliances with accredited cancer program hospitals. The main strategies included interhospital patient transfer procedures, Interhospital personnel exchange, oncology education program, cancer case management, and multidisciplinary meetings were established in the project.

#### Results

These non-accredited hospitals learned the cancer program standards from the accredited hospitals and developed their comprehensive breast cancer, colorectal cancer, head & neck cancer and lung cancer care programs. The chemotherapy, radiotherapy, concurrent chemoradiation therapy and hospice care patients in regional / rural areas increased double amount in 2013, and the patient's and family's satisfaction of cancer care is between very high and high. Cancer case management center in Penghu offers cancer patient referrals and follow-up all over the archipelago.

#### Conclusions

The project improves easy access and quality cancer care to rural population, especially long—term chemotherapy, radiotherapy, concurrent chemoradiation therapy and hospice care, and draws the cancer care map in Taiwan more completely. The rural cancer patients won't travel far away to major center for further treatment and follow-up care visits. The alliance model can be apply to the other areas in Taiwan.

#### **Comments**

Alliances between accredited and non-accredited cancer program hospitals are effective approaches to improve regional / rural oncology services in Taiwan. It can be applied to other areas in Taiwan.

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Determinants for aggressive end-oflife care for oral cancer patients: A population based-study in an Asian country

### LEE Ching-Chih, WANG Yuh-Feng, LAI Ning-Sheng

#### Introduction

To investigate the association between patient demographics, primary physician's specialty and hospital characteristics of patients who died from oral cancer in Taiwan from 2009 to 2011 and the aggressiveness of their end-of-life (EOL) care.

#### Purpose/Methods

This study identified 5386 patients who died from oral cancer identified from Taiwan's National Register of Deaths Database and collected their claims data from Taiwan's NHIRD. Accepted indicators of aggressiveness of EOL care were examined using a composite measure adapted from Earle et al. The impact of each variable on the aggressiveness of EOL care was examined by multivariate analysis using a random-intercept model.

#### Results

Mean composite score for aggressiveness of EOL care was 2.82  $\pm 1.47$ . Oral cancer patients who were younger, had a higher level of comorbdity or metastasis, belonged to a lower level individual SES, were cared for by non-oncologists, had longer post-diagnosis survival times or resided in urban areas were more likely to receive aggressive care at EOL. Oral cancer patients near the death in this nationwide study had a far higher utilization rate (>50%) of chemotherapy, ER services, and ICU services.

#### **Conclusions**

Our findings indicate that oral cancer patients receive extensive aggressive medical care at EOL. Future research may be needed to examine the effect of the means (indicators) of aggressive treatment on survival, quality of life, and medical costs, especially since current research suggests such care may adversely affect quality of life and important preparation of death in these patients.

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Low Socioeconomic Status is Associated with More Aggressive Endof-Life Care in Working-Age Cancer Decedents

### LEE Ching-Chih, WANG Yuh-Feng, LAI Ning-Sheng

#### Introduction

Previous studies found conflicting relationships between low socioeconomic status (SES) and aggressiveness of end-of-life (EOL) care in older cancer decedents. In this study, we proposed to assess the association between EOL care aggressiveness and

SES differences in working-age (over 18 years old and less than 65 years old) cancer decedents from Taiwan between 2009 and 2011.

#### Purpose/Methods

This population-based, retrospective cohort study used administrative data. A total of 32,800 cancer decedents were identified from the Taiwan National Health Insurance Research Database. The aggressiveness of EOL care was examined by a composite measure adapted from Earle et al., with higher scores indicating more aggressive EOL care. Hierarchical linear regression methods and multilevel logistic regression models were used to explore the association between SES and indicators of aggressive EOL care.

#### Results

Up to 81% of the patients presented at least one indicator of aggressive care. Men with age 35- 44-years-old and low-SES who presented metastatic malignances, lived in urban areas, or were in hospitals with more health care resources were more likely to receive aggressive EOL care. In multilevel logistic regression analyses, high-SES cancer decedents had less chemotherapy (P<0.001), fewer ER visits (P<0.001), fewer ICU admissions (P<0.001), and lower rates of dying in acute hospitals (P<0.001) than low-SES cancer decedents did.

#### Conclusions

Between 2009 and 2011, working-age cancer decedents in Taiwan continued to receive aggressive EOL care. EOL care was even more aggressive in patients with low-SES. Public health strategies should continue focusing on low-SES patients to provide them with better EOL care.

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# Establishing a Cooperative Model between Medical Centers and Communities for Cancer Prevention

#### LIN Hui-Ping, LU Shu-Ru, TSAI Ting-Fang

#### Introduction

Cancer prevention is an international health issue. The enhancement of the cancer screening efficiency for early case diagnosis is the important work of the public health program. Beitou District Health Center worked with the medical centers to reach out into communities and job market using the pilot test model and established a proactive cooperative cancer screening model to enhance the number of oral cancer and colon cancer screening cases and the positive case follow-up rate.

#### Purpose/Methods

The intervention strategy covers: arranging medical centers to directly provide cancer screening for employees at the



workplaces with high risk, such as construction sites, bus and taxi industry; installing excrement tube recycling boxes for colon cancer screening to enhance the recycling accessibility; providing assistance to hospitals in organizing "Call for a Group to Collect Points"; establishing the standard procedure for positive cancer case referral and giving guidance to hospitals for providing "registration fee free" service to positive cancer case.

#### Results

After intervention, the number of screening cases for oral cancer conducted by the medical centers in years 2011 and 2012 increased 195% (from 286 to 844 cases) and number of positive cases increased 76.78% (from 56 to 99 cases); a total of 52 cases were confirmed. For colon cancer, the number of screening cases increased 134% (from 1,936 to 4,536 cases), and number of positive cases increased 100% (from 164 to 328 cases); a total of 33 cases were confirmed.

#### Conclusions

Through the construction of a cancer prevention medical network, the paper was able to establish a cooperative model between medical centers and local boroughs and communities, thereby effectively increasing the number of cancer screening and the number of positive cases diagnosed. In the future, Beitou District Health Center shall establish a large-scale network system between hospitals and communities within its locality under this policy to achieve effective screening and promote the community health.

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# Nurse-lead intervention for detection of cancer inpatients suffer from oral mucositis

### LI I-Ju, SU Chiu-Ping

#### Introduction

Cancer is increasing in incidence in the Taiwan and indeed worldwide. Radiation therapy and/or chemotherapeutic agents can effectively treat many types of cancer, but it also can have unwanted side effects. Oral mucositis is characterised by recurrent, erythematous and painful ulcers that usually become apparent in the second week of radiation treatment. Negative clinical outcomes of oral mucositis include dysphagia, altered taste perception, infection, malnutrition, communication difficulties, which necessitate increased resource utilisation.

#### Purpose/Methods

This study aimed to use an intervention focusing on the prevention and detection of oral mucositis and the intervention in Taipei. The intervention was assessed in terms of mouth care knowledge and awareness of cancer inpatients and perception of the educational material developed for the intervention.

Statistics were used to calculate while a pre and post-intervention design was used to determine knowledge and awareness and perception of the educational material. Sampling was purposive and all people reporting for cancer inpatients were recruited for the study. The sample totalled 215 (n = 215) and the participation rate was 100%.

#### Results

March 2013 to October 2013 found that cancer inpatients had oral mucositis, the incidence was 67.6% to 21.2%. The patients to perform a complete mouth care rate of 31.2% to 95.2%. The strategy used to improve knowledge and awareness was successful. Overall, attitudes to teaching were positive.

#### Conclusions

Cancer inpatients seem generally unaware of the complete mouth care for their importance but are happy to take part in this study, would like to be informed, expect them to perform a complete oral care themselves, in order to reduce the risk of oral mucositis.

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# Management of Anorectal malfunction after lower rectal surgery

#### YEH Chung-Hung, CHEN Mei-Tsu

#### Introduction

Colorectal cancer is the third most commonly diagnosed cancer in the world, and approximately 30 % of all colorectal cancers are located in part or entirely below the peritoneal reflection. There are more anorectal malfunctions encountered due to low rectal surgery. These complications affected the postoperative outcome of the patients and need special management to improve the quality of life of the patient.

#### Purpose/Methods

The technique of total mesorectal excision (TME) and the use of adjuvant and neo-adjuvant chemotherapy improved the local control and the survival of the patients. The intersphincteric resection with colo-anal anastomosis gives the patient with low-lying rectal cancer an opportunity of avoiding permanent colostomy. Meanwhile, the surgery-related internal and external sphincter impairment and reduction in rectal compliance, and the pelvic floor muscle and nerves damage caused by pre- or post-operative radiation are postulated as cause affecting anorectal function in patients who underwent low rectal surgery.

#### Results

Some rare complications such as colonic prolapse or severe fecal incontinence may suffer the patient and impairs their quality of life. 3 cases who suffered from these rare complication after lower rectal surgery was refer to our hospital and the symptoms

were relieved after adequate evaluation and bio-feed back training.

#### Conclusions

The advancement of the surgical technique not only improves the oncological result but also increase the possibility of preserving the sphincter after low rectal resection. Colonic prolapse or severe fecal incontinence may happened after inadequate dissection. We would like to share our experiences of threating 3 cases who suffered from these rare complication after lower rectal surgery.

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# The effect of the informatics nutritional consultation system for inpatients with cancer

## HSU Wan-Ling, HUANG Ching-Fen, YI-CHEN , FENG Wen-Jui, CHIN-YING

#### Introduction

Previous research indicated that timely intervention of nutrition care for hospitalized patients has tremendous benefit on their illness process and outcome. For patients with cancer, good nutritional intake may maintain cancer patients with physical needs, drug tolerance, and illness recovery. Early nutritional care to enhance the nutritional status of patients with cancer is crucial; however, the integrated process of nutrition care and standard is always lack or neglected in the medical practice.

#### Purpose/Methods

The article is to evaluate the effect of nutritional consultation system for cancer inpatients. The standard nutritional protocol based on the empirical researches was developed by the informational system called Nutrition Consult Notification System. As the patient's BMI <18.5 and serum albumin <3.0 within 7 days, the system presents the message window to timely remind physicians to prompt the consultation with nutritionist, nurse practitioner, and discharge planner. Data were collected from the consulting system within hospital of south Taiwan.

#### Results

In the trend of patient-center medical service, the study indicated the followings: (1) Enhancing the rate of inpatient nutritional consultation and set of patient nutrition care process. The completely nutrition consultation rate is 1.4% in July of 2009 to 74.8% in December of 2010. (2)Patient nutrition supply could up to 80% of the recommended amount. (3)After intervening the nutrition care for cancer patients, their average of calories intake could increase 300~400kcal, and the data of Albumin is also improving.

#### Conclusions

Implementing the nutrition consulting notification by the informatics system, early nutrition could be intervened with promptly assessment and patients can get the integrated care from medical team. Based on the empirical guidelines, patients may receive adequate nutrition via the feeding process, which results in improving cancer inpatients' nutrition status, reducing length of stay, and enhancing the quality of care. Through the decision support system of nutrition consulting, both patients and hospital have positive effect on the patient-center care.

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### Taiwanese Tea Culture as a Therapy to Relief the Grievous Families of the Hospice Patients

#### WU Fang-Chien, LIOU Jing Fang, LIN Meiyu

#### Introduction

Tea is the indispensable part of daily life in Chinese culture. The Buddhist cultivation methods, Zen meditation, used tea-drinking as the personal refreshment to urge the Zen meditator's mind. Hence, Buddhists established certain ritual of tea-drinking and named it as "Cha-Do" to bring person into the mood of peace and calm. Accordingly, we have tried to apply the habitus of tea-drinking in the hospice, to help the patients' families to release their tensions and sorrows.

#### Purpose/Methods

The ritual of 'Cha-Do' put emphasis on the attentive and delicate interaction between hosts and guests. In the ward, the volunteers, brew up the tea and played the role of hosts to keep their hearts in the mood of modesty and peace. The other volunteers played the gu-qin to create the comfortable musical atmosphere. The patients and their families played the role of guests, to experience the feelings of being well served, to release their inner emotions and share their feelings.

#### Results

According to the analysis on the responses from the participants of the orthodoxy group therapy, the employment of tea-drinking habitus could solve the anxiety of the family members before the group therapy, reduce the strangeness among the group members, and make members' silences seem natural through the ritual of tea-drinking, which contribute to the formation of group dynamics. The patients' families may try to change their minds in the process of tea-drinking.

#### Conclusions

Therefore, our hospice arranges the regular time schedule for the meetings of different patients' families. In the meetings, the volunteers brew up the tea and play the gu-qin to convey some kind of non-oral but cultural concern, and create a comfortable



environment, where the families of different patients can talk about their respective life stories and share their common experiences, together finishing the goal of the group therapy.

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# Session P2.8: Improving the quality of life of cancer patients

Implementing a health promotion program to improve the quality of life in prostate cancer patients

### SERDÀ BERNAT Carles, MARCOS GRAGERA Rafael, JUVINYÀ CANAL Dolors

#### Introduction

As prostate cancer (PC) is diagnosed at early stages, and with more favourable survival outcomes, the basis on which patients select primary therapy has shifted toward considerations of quality of life (QoL) (Sanda et al., 2008; Segrin et al., 2012). Urinary incontinence (UI) remains a significant predictor of lower QoL across all domains of physical, mental and social health in PC patients. The improvement of UI is significantly associated with reduced distress and improves the QoL over time (Zhang et al., 2007).

#### Purpose/Methods

To describe a Health Promotion Program (HPP), based on Pelvic Floor Muscle Treatment (PFMT) adapted to the UI symptom and QoL. This study is a randomized clinical trial. The sample was formed by 66 participants with PC. The groups were randomized into an experimental group (EG) and a control group (CG). The variables are related to the UI, muscular strength, and QoL. A statistical analysis was conducted using the Student-Fisher t-test, the Mann-Whitney-Wilcoxon test, and the chi-square test.

#### Results

After 24 weeks an improvement was identified in the EG compared with the CG, in waist perimeter ( $p \le .001$ ), variables related to the UI symptom, intensity, frequency, difficulty and limitation of activity ( $p \le .0001$ ). A correlation between UI and QoL was observed (p = .039).

#### Conclusions

The improvement in QoL is mediated by the improvement in the UI symptom. The HPP is an effective way of causing the symptom of UI to regress in men treated for PC. PFMT improves, the muscular condition of the pelvic floor muscle (a decisive aspect for improving urine retention) and, the general strength and muscular resistance of the body. The adherence rate achieved

was 91.66%. Furthermore, starting PFMT in a pre-operative context should contribute to improving the results achieved.

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### Difficulties when trying to implement evidence based health promoting approaches in cancer care

## SNÖBOHM Christina, WESTERGÅRD Jens, DAHLIN Ylva

#### Introduction

Physical activity can reduce the risk of dying from prostate cancer and reduce side effects of hormonal therapy. At Karolinska University Hospital structured support for prostate cancer patients who need help to become more physically active and who need tools to implement a behavioral change towards a physically active life is lacking. Physical activity on prescription, FaR ® is an evidence-based approach that could be used and there is a need to find new ways to reach the patient group.

#### Purpose/Methods

To find out if a drop-in reception is an effective method to reach prostate cancer patients in need of counseling and physical activity on prescription. A planning meeting with nurses was conducted to explore the conditions for the project, indicating a low level of knowledge of the effects of physical activity. A pilot project was initiated; a drop-in reception with physiotherapists in the clinic's premises in connection with a visit to a nurse 4-5 months after start of endocrine treatment.

#### Results

Few patients visited the drop-in reception. A total of 69 patients had a scheduled visit to the nurse but only one patient visited the physiotherapists. Drop-in reception in conjunction with the visit to a nurse was not an effective method to reach the intended patient group.

#### Conclusions

Health promoting interventions such as advice on physical activity do not seem to be prioritized in cancer care in Karolinska University Hospital, although there is strong evidence for the importance of physical activity. Clear implementation strategies such as organizational commitment, analysis of strengths and weaknesses and education is essential. The physiotherapists continued with the project despite that those things were lacking. To succeed, more effort has to be spent on activities aiming on changing culture towards more health promoting approaches.

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### Effectiveness of Physical Therapy on Shoulder Mobility and Activity of daily life for Patients after Surgery for Breast Cancer

#### **CHANG Rei-Tung**

#### Introduction

With the advances in medical technology, the impact of physical disabilities incurred after breast cancer surgery and musculoskeletal disorders related to aging on the quality of life in breast cancer patients raises more attention. Hence, to assess the efficacy of how physical therapy for patients receiving breast cancer surgery affects postoperative shoulder dysfunction, postoperative pain, muscle strength and the quality of daily life has become one of the important clinical issues.

#### Purpose/Methods

This study through clinical cases is to explore the impact of breast cancer patients receiving different surgeries undergo physical therapy after their discharge and the comparison of relevant literatures, expecting to understand the characteristics of patient population in the hospital and the differences among the literatures and further establish nation-related information. This study aims to explore the effect of physical therapy on postoperative shoulder joint angle, postoperative pain, muscle strength and quality of daily life after different types.

#### Results

After data analysis, the findings in this study are as below: 1.The range of the shoulder movement after surgery such as Shoulder Flexion, Shoulder Abduction and Shoulder Internal/External Rotation is restricted more significantly. Such shoulder dysfunction after the treatment can make prominent progress, but a slower recovery in shoulder abduction and external rotation is presented. 2.After the surgery, muscle strength (4 to 5) is not significantly affected. 3.The treatment effects would not be affected regarding the timing of postoperative intervention and the age.

#### Conclusions

Shoulder dysfunction following the surgery has an impact on the quality of life, it improved significantly after the intervention of physical therapy. Although the sampling was limited, the effects of physical therapy on shoulder dysfunction as a commonly seen condition after the surgery and on the quality of life were significant, but irrelevant to the age and the timing of postoperative intervention.

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Chi Mei Medical Center, Liouying No.201, Taikang, Taikang Vil., Liuying Dist 73657 Tainan, TWN wtsenge@gmail.com Experience of the Integrated
Medicine in Nutrition Health
Education System among Cancer
Patients Self-care

## CHEN Yu-Hao, HUANG Ching- Hsiu, YEH Ming- Hsien, LIN Nei-Wei, LIN Ming-Nan

#### Introduction

Incidence and prevalence of diet related cancer is increasing around the world. The survival rate of cancer patients is also increasing because of the advanced medical technology. Thus providing cancer patients with individual diet instruction before and after treatment become more and more important. In oriental society such as Taiwan, Chinese traditional medicine plays a role in patient care. Designing nutritional support according to patients culture is an important issue in health promoting hospital. Both dietitians and traditional Chinese physician can provide individually nutrition assessment and offer constitution services. Combination of these advantages of these two professionals would have better effect on promoting patient's health and treatment process.

#### Purpose/Methods

The aim of this study is to understand the individual nutrition suggestions from integrated view of dietitians and Chinese Medicine physicians. Dietitians assess the amount of calories and types of nutrients of each individual patient. Chinese Medicine physicians give advices in choosing different kind of food according to each patient's constitution ( Yin-Yan, Cold-Hot) to provide specific nutritional support.

#### Results

After assessment of calories and health education by dietitians and Chinese Medicine physicians, the 99 cancer patients have improved calories intake ( 1438 Kcal in average) which reach 75% of nutrition suggestions, about 26 Kcal per kilogram of weight during the treatment process. Questionnaires of satisfaction for the patients reached 94.7%.

#### Conclusions

Through the integrated nutritional services, dietitians cooperated with Chinese Medicine physicians to double check the advantages and disadvantages of each diet. This trans-disciplinary care model fits in the society needs . When the patients were discharged, they still can use this approach to search their individual diet needs. The innovative care model will assist patients strengthen the self-care ability and improve their health.

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### Shared experiences -Mindfullness-Based Art Therapy Group for Women with Cancer

#### **CHIANG Chia Wei**

#### Introduction

Tungs' Taichung Metro Harbor Hospital Counseling Psychologist, Chiang Chia-Wei Key words: MBAT, Group therapy, cancer patients Since 2013, the Taiwan Ministry of Health and Welfare for psycho-oncology development has suggested that counseling psychologists or clinical psychologists be members of mental health cancer care teams. Therefore, many hospital cancer centers are dedicated to developing great psycho-oncology service. Our hospital offers cancer patients an opportunity to participate in a free group program called Mindfulness-Based Art Therapy (MBAT), to help cancer patients improve their quality of life. Four female patients volunteered to participate in this group. In this study, a counseling psychologist shared group design content. The patients described positive changes in their lives as a result of their participation in this group. Also, we confirmed that another healing factor for cancer patients is good doctorpatient relationships.

#### Purpose/Methods

Mindfulness-Based Art Therapy (MBAT) intervention is conceptually rooted in principles of self-regulation theory, which provides a foundation for understanding reactions to perceptions of physical and emotional well-being. Cancer patients learn how to face the threat to their body using mediation exercise to promote subjectivity and objective sensitivity. The artistic activity in the group program was designed as follows (Table 1). Table 1 --

MBAT Designed Content ------

Draw a complete of yourself 3 Expanding awareness, Draw a complete picture of your body 4 Body scan meditation (I) Homework Practice 5 Body scan meditation (II) Homework Practice 6 Gentle yoga and sitting meditation 7 Intending well-being/Loving Kindness meditation 8 Imagine Loving Kindness to all body cells 9 Walking Meditation, Free art making 10 Open studio: free art-making 11 Body scan meditation, Mindful exploration of art materials 12 Free creation activity (1) Dialogue with God (Matsu) 13 Free creation activity (2) Dialogue with God (Matsu) 14 Creative problem solving/imaging self-care 15 Cancer cells meditation/Life Priority Discussion 16 Share life experiences, self-assessment, self-awareness

------\*Before the beginning of every session, group members were encouraged to practice twenty minutes of meditation and breathing.

#### Results

The group leader found that participants enjoyed the twenty minutes of mediation and breathing exercises before the beginning of the sessions and found that it increases the stability of this group. Here are some typical comments from interviews with the participants. Participant A said, "I like myself more. Every day, I will practice mediation in natural places, such as mountains, gardens. I trust I am a happier wife and grandma with

a rich soul. Some of my friends have said, 'I can do no better than to own my life every day." Participant B said, "Every time, I found that I was happy and peaceful during group sessions. I feel grateful to participate this group. Also, I feel gratitude to my oncology doctors and psychologist." Participant C said, "I started to participate in some [outside] art activities after attending the MBAT group. I will practice meditation and trust my inner selfhealing ability. I cherish the time [I spent in] every group session, also I feel peaceful even when I have a recurrence. I was lucky to participate in this group. I have become better able to care for myself, not only sacrifice my real self-part." Participant D said, "I never thought that I could participate in an MBAT group. I see positive changes and accept my whole self." After sixteen weeks of group meetings, we found that the four cancer patients had improved their self-management skills, had more positive attitudes about consulting with their physicians, and had better relationships with people than before the study. Clearly the participants realized improvements in the quality of their lives from participating in the MBAT group.

#### Conclusions

Sixteen weeks is a longer-term program. In the group recruiting stage, our oncology physician encouraged their patients to participate in an MBAT group, even patients facing a recurrence situation. Even though the participants had many fears and anxieties, their physicians still encouraged them to participate in the group regularly. Cooperation between physicians and mental health workers is a key factor in upgrading psycho-oncology services.

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# Ethical Dilemma to Approach Terminally Dying Cancer Patients: Do No Harm or Curative Intent

#### HO Hsu-Chueh, LEE Cheng-Yung

#### Introduction

With the Hippocrates'Oath of Medicine, medical ethics has cast considerable light on do no harm since the 1960s. Although the approach to terminally ill cancer patients varies and is usually around medical ethics that involves physical, spiritual, social, and economic contexts, do no harm embarks on the momentous era of patient-centered care. However, do no harm is frequently challenged by the expectation of curative intent. Therefore, decision making toward terminal illness becomes a dilemma for patients, families, and health care providers and many health policies develop guidelines to deal with end of life. To assess comprehensively the clinical and economic implications of end-of-life for cancer patients, we compare the cost and effectiveness in four hospitalized settings, hospice, ICU, nursing, and general setting for dying cancer patients.

#### Purpose/Methods

Costs are estimated directly included hospitalizations, laboratory tests, imaging studies, clinical procedures, and medications, whereas, effectiveness is other than monetary measures, in this study, it is referred to life span. We conducted medical review retrospectively. All cancer patients who died in hospital or at home within 3 days after discharge during August 2000 through February 2012 were included. We further classified these into four categories: ward, hospice, ICU, and nursing home.

#### Results

There were totally 6624 patients consisting of 1589 (24.0%), 3308 (50.0%), 1499 (22.6%), and 228 (3.4%) in the categories of ward, hospice, ICU, and nursing home, respectively. The mean hospitalization duration to death, i.e., effectiveness, and mean costs per day were 11.7 days and \$3154 for ward, 10.2 days and \$1267 for hospice, 13.0 days and \$5864 for ICU, and 10.5 days and \$2018 for nursing home (p=0.467 for hospitalization duration and p<0.001 for total costs and daily costs).

#### **Conclusions**

Although the potential reduction in cost achieved by hospice palliative care for terminally ill patients is easily shown, there is limited information for decision making toward end-of-life. The results demonstrates whether palliative care in hospice or curative intent in ICU, the lengths of end-of-life were similar. That is, there is no survival benefit among practices but exists significant differences in costs but there exists significant cost differences.

#### Comments

For clinical and economic reasons, the efforts to curb medical costs without wasting medical resources have resulted in increased emphasis on palliative care rather than active treatment. However, no matter what medical practice is, any decision should be made based on patient's will.

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# The use of a case management model to reduce the incidence of suicide in cancer patients

#### CHANG Hsin-Hui, SU Yi-Lin, LI Hsiu-Chiang

#### Introduction

The risk of suicide in cancer patients is higher than that in the general population. The suicide risk assessment and diagnosis is very important. Patients with certain cancer types, who have lower quality of life and more emotional distress, seem to carry higher suicide risk. There is an increasedrisk of suicide associated with cancer severity. This stage patients in dire need of medical team accompanied by the proper use of case manager that allows patients to get the perfect Caring.

#### Purpose/Methods

March 2013 based on "gatekeeper concept-ask, answer, referrals" principle and the use of hospital case management system, and team worker to construct a systematic pattern of suicide prevention, such as: the risk of suicide in cancer patients a preliminary screening inspection evaluation form, program to case manager training, to build communication information systems with the physician, implementation of suicide risk referral process.

#### Results

April 2013 to September period to implement systematic suicide prevention model, the results were assessed 60 cancer patients, breast cancer (28.33%), lung cancer (26.67%), oral cancer (20.00%); male to female ratio was 50.00 percent each; aged 41-60 years accounted for 53.33%; cancer stage iv accounted for 35.00%, stage iik ii 20.00% of each; psychological misery index accounted for 18.30% of 6-9, with the majority of lung cancer (45.45%); far cancer patients since April 2013 incidence of suicide

#### Conclusions

Cancer patients suicide, whether suicide rescued, or committed suicide, the patient's family or society will have a significant impact . As compared to other countries, the suicidal rate of cancer patients in Taiwan is much higher, the quality of care for cancer in Taiwan is still necessary to strengthen. Another suicide prevention model can be pushed to other inpatient, to achieve patient safety goals.

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Effectiveness of Post-operative Early intervention of swallowing training and monitoring feeding safety for oral cancer patient

#### LEE Yi-Chen, CHANG Min-Te, YEN Ching-Yu

#### Introduction

The incidence of oral cancer is the number four of top ten cancers for male in Taiwan and also increasing gradually every year. Surgical approach is the major treatment and its complication is tissue defect and scars that affect swallowing function and induce choking.

#### Purpose/Methods

We use early intervention of swallowing training and combined test of swallowing to evaluate the change of swallowing function of 87 Oral Cancer patients postoperatively, and found out which factors can influence the swallowing ability. The reliability of



indexes for shift from tube feeding to oral intake can also be checked.

#### Results

The factors influence recovery of swallowing function in oral cancer patients postoperatively is related to tumor stage, jaw-bone resection and neck dissection, statistical data showed significant differences. There is no choking happened when tube feeding shift to oral intake. The average interval for removing the nasogastric tube is 8.62 days.

#### Conclusions

Early intervention of swallow training intervened can effectively monitor the postoperative swallowing function and recovery of Oral Cancer patients

#### Comments

Our study of combination of swallow training and feeding safety checklist to confirm the patient's ability of oral intake is adequate and reliable

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### Sexual health educational needs for Taiwanese Women after Gynecological Cancer

#### LIU Yi -Ling, LEE Jian Tao

#### Introduction

This study aimed to understand the demands for the content materials of sexual health media education for women with gynecologic cancer whom underwent surgery, radiation and chemotherapy. There were 105 women with gynecologic cancer were enrolled. The questionnaires were used as the reaserch tools. The questionnaires contained "the scales in gynecologic cancer women's knowledge for sexuality", "the scales in gynecologic cancer women's attitude about the sexuality", the learning phases", "the assessments for the courses about sexual health education for women with gynecologic cancer", "the assessments for the demands for the content materials of sexual health education for women with gynecologic cancer" and "the demographic characteristic"

#### Purpose/Methods

First: the changes in sexual physiology after gynecologic cancer treatments. Second: the impacts in sexual life for the partner after gynecologic cancer treatments. Third:the impacts in sexual relationship for the partner after gynecologic cancer treatments. The data analyses were used by frequency, mean, standard deviation, percentile, sort, independent samples t - test, One-way ANOVA, Pearson correlation coefficient.

The main people who practice the sexual health education for the women with gynecologic cancer were the gynecologic cancer attending physicians and" gynecologic cancer ward nurses. The health education pamphlets were the major education materials. The Gynecology Ward and Gynecology outdoor patients department were the major place to get that health education information. In our study, the demands for the content materials of sexual health education for Taiwanese women after gynecologic cancer were positive correlation to sexual attitudes (r=0.223, p < 0.05). If they have more positive sexual attitudes, they demanded more the content materials of sexual health education.

#### Conclusions

the demands for the content materials of sexual health education media for women with gynecologic cancer were positive correlation to those demographic characteristics, including "age", "education level" and "the monthly averaged frequency of sexual activities". Younger women, women with higher education, and women with more monthly sexual activities have the more demands for the content materials of sexual health education media for gynecologic cancer women. As the references for further development in gynecologic cancer women's sexual health education models.

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# How do Illness Representations, Goals of Illness Adaptation, and Other Life Goals Interact with Each Other? — Case Study for Breast Cancer Patients

#### PAI Hsin-Yi, HO Hsueh-Lin, WU Yin-Chang

#### Introduction

Breast cancer would impact on divergent domains of the patients' life, so it is important to help the patients developing adaptive coping strategies. The primary task of coping procedure is to identify goal(s). And according to Commonsense Model, how the patients would cope with the threat of illness is influenced by their illness representation. Therefore, to explore the interactions between the patients' illness representations and goals is essential for understanding the patients' subsequent coping procedures and behaviors.

#### Purpose/Methods

This study aims to explore the relationships among illness representations and goals of illness adaptation and other life aspects in breast cancer patients. Using the case study design, two breast cancer patients were received focused interviews for 3 and 5 times respectively. And the qualitative analysis method was used to code interview transcriptions.

#### Results

#### Results

The results revealed that (1) the setting of goals of illness adaptation was guided not only by the illness representations, but by the product of interaction between the illness representation and the other life goals; (2) how they represented their illness would influence the regulation of and commitment to their other life goals; (3) their goals of illness adaptation were usually as the means to approach their other life goals.

#### **Conclusions**

Except for confirming the goals-setting of illness adaptation was directed by illness representations, results showed that whether and how the patients represented the illness as a threat to attain their important life goals determined how they set their goals of illness adaptation and how much effort they would devote to the goals. Therefore, this research suggested that consideration of patients' life goals striving cannot be overlooked when helping them to adjust to cancer.

#### Comments

This research provided real examples of the interactions of the illness representations, goals of illness adaptation, and other life goals in breast cancer patients. However, because of the features of the research questions, the case study method was used. Therefore, the results of this research may not be generalized to other patients' experience. The future research should include more participants to establish an integrating theory, and develop a more structured interview method based on it, to increase the clinical efficiency.

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### Session P2.9: Pain management

Project to improve comfort to the intubated patients in intensive care

#### **MATEU CAPELL Marina**

#### Introduction

When physicians remove mechanical ventilation, first it is necessary to eliminate the effects of sedation. They want patients to make sensory contact with the environment in a calm way. Often, certain factors can make this process difficult. ICUs are subject to noise pollution because of clinical activities: working staff, alarms and other noises fill the patient's environment. Sometimes, noise levels can be up to 95dB, whereas the WHO recommends 35-40dB. Nurses need all possible tools to give comfort these patients

#### Purpose/Methods

The purpose of this project is to assess nursing care that combines noise cancelling with relaxing music. Design: A randomized clinical trial block, cross-scripting: Group A: noise

cancelling (1h) followed music therapy (1h). Group B: music therapy (1h) followed noise cancelling (1h). A comparison of the data so as to detect variations between the two treatments and detect residual effects of one treatment compared to the other. Patients will receive a combined treatment, only one time, through headphones.

#### Results

EXPECTED OUTCOMES It's expected that this mediation will allow patients to hear something more pleasant than the usual sounds. For this reason, we think that they will demonstrate calm, relaxed and cooperative behavior while they are undergoing noise cancelling and music therapy. That will be a sign for us that these patients can achieve better environmental comfort.

#### Conclusions

EVALUATION CRITERIA Behavioral level: it'll be analyzed the level of comfort the patient shows through the sedation scale (Ramsay), the behavior pain scale (BPS) and bispectral index (BIS). It'll be also analyzed which sedatives (midazolam, propofol, others) patients need compared to baseline, during both mediation. Physiological level: it'll be analyzed whether the effects of music therapy and noise cancelling produce any change in blood pressure, heart rate and respiratory rate. The sample will be at least 80 patients.

#### Comments

Actually, this project is developing and it just starting to collect data.

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Daily record of pain assessment in the clinical records: a tool to promote health in the hospitals.

### VILAJELIU Alba, ROBLES Dolors, SANTIÑÀ Manel

#### Introduction

Pain control in hospitalized patients is an indicator of good clinical practice. It is known the relationship between patient satisfaction and pain. The hospitals have programs for pain assessment and management which includes daily and systematically evaluation in clinical practice. The aim is to prevent unnecessarily pain suffering in hospitalised patients. The purpose of this study is to present the results of a tertiary care university hospital that has implemented such program.

#### Purpose/Methods

A retrospective observational study of 654 clinical records from Hospital Clínic de Barcelona was held during four years (2010-



2013). The register of pain assessment was evaluated on the clinical records related to 34 nursing services. A three-point scale (from 0 to 2) was used to score the registry of pain assessment (0: not registered, 1: registered but not daily, 2: daily registered). The evaluations were conducted by two independently health professionals trained for this purpose. The final score was discussed and reported to the professionals in charge of the nursing services with the aim to improve it.

#### Results

There is a growing trend in the daily record of pain assessment during these four years, from an average score of 0,89 in 2010 to 1,38 in 2013. The best nursing units during this period were gastrointestinal surgery, neurosurgery, gastroenterology with an average of 1,59, 1,55, and 1,49 respectively; getting all of them more than the 70% of the highest possible score. The nursing unit with the lowest score was the emergency department.

#### Conclusions

Pain control is one of the health problems that professionals working in hospitals have to deal with daily. A good method for improving clinical practice is to establish systematic work that evaluates what has been done and report it. The results also show, since the score has improved yearly, that it certainly could help to the admitted patients from suffering pain unnecessarily.

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First do no harm: pain relief for the peripheral venous cannulation of adults, a systematic review

### BOND Mary, COOPER C, COELHO H, HAASOVA M, MILNER Q, SHAWYER V, HYDE C, POWELL R, CRATHORNE L L1

#### Introduction

It can be argued that causing unnecessary pain during medical procedures is harmful. One example is the routine insertion of peripheral venous cannulae (PVC). This procedure is a common experience for thousands of patients every day and reported by adults to be painful. Our objective was to discover the relative effectiveness of local anaesthetics for routine peripheral venous cannulation in adults and whether the ease of cannulation is affected by the use of local anaesthetics.

#### Purpose/Methods

This systematic review was carried out following the principles published by the NHS Centre for Reviews and Dissemination and is registered at PROSPERO no. CRD42012002093. Data sources included: Medline, Medline in Process, Embase PsycINFO, Cinahl, British Nursing Index and the Cochrane library. Eligibility criteria were: studies of adults who experienced routine PVC;

intervention, any local anaesthetic, comparator, routine PVC without local anaesthetic; design, all controlled trials, observational studies with control groups and economic evaluations. The primary outcome was self-reported pain.

#### Results

16,368 titles and abstracts produced 34 includable studies. All local anaesthetics were effective and lidocaine was found to be most effective, weighted mean difference (95%CI) 11.2 (18.20 to 4.21). The pain of peripheral venous cannulation was more than twice as great as a lidocaine injection (lidocaine admin: mean 10.0 (95%CI 3.5, 19.0) control: mean 23.5 (95%CI 12.0, 47.8), VAS 1-100. The mean (SD) score unattenuated cannulation pain was 3.62 (2.86), VAS 1-10. Local anaesthetic did not make cannulation more difficult.

#### Conclusions

Adults find peripheral venous cannulation painful. This pain can be successfully treated without making the procedure more difficult. Routine adult peripheral venous cannulation should include local anaesthesia as is common paediatric practice.

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# Tactile massage as part of the caring act – a qualitative study in short-term emergency wards

### AIROSA Fanny, FALKENBERG Torkel, ÖHLÉN Gunnar, ARMAN Maria

#### Introduction

Advances in health care technology and high workdemands in combination with a stressful environment highlighted patients' medical conditions in a short-term emergency ward. Nevertheless, holistic care is and should be an ideological cornerstone of nursing practice. Tactile massage (TM) is a soft tissue massage, consisting of slow, structured movements with the palm of the hand.

#### **Purpose/Methods**

The aim of this study was to illuminate the meaning of nurses giving tactile massage in a short-term emergency ward. A phenomenological hermeneutical method was chosen to describe nursing staff's lived experiences of meaning in giving TM in patient care in a short-term emergency ward. Six nurses and eight assistant nurses participated in the study. Data was collected through individual interviews and the narratives were analysed using a phenomenological-hermeneutical method.

#### Results

A holistic caring approach tends to the patient's physical as well as emotional needs. The way in which the staff experienced

providingTM to patients in a short-term emergency ward may be interpreted as them becoming aware of connecting in total presence with the patient, with nurses becoming natural caring caregivers. TM provides nurses with a tool to ease patient suffering and pain, as they become more deeply aware of how to touch the patient.

#### **Conclusions**

Given the current high-tech healthcare system with overcrowded units and a shortage of nursing staff, including TM as a caring tool may improve a holistic approach to caregiving, allowing nurses to act in compassion with both the patient and themselves. Using tactile massage (TM) in nursing allows us to invest in caring for the patient and provides an excellent environment for the development of compassion in the nurse/patient relationship.

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Laser Acupuncture Attenuates
Neuropathic Pain and Cold Allodynia
for Colorectal Cancer Patients with
Chemotherapy-induced Peripheral
Neuropathy

#### **HSIEH Yueh-Ling, YANG Chen-Chia**

#### Introduction

Oxaliplatin is a widely standard chemotherapy regimen for treatment of stage III and stage IV colorectal cancer, but often leads to neuropathic cold allodynia and pain of adverse effects which may impact on activities of daily living. Laser acupuncture (LA) defined as the stimulation of traditional acupuncture points with low-level laser irradiation is used for the treatments of neuropathy. However, there are no clinic trials to be conducted the anti-allodynic effects of LA in oxaliplatin-induced peripheral neuropathy (OIPN).

#### Purpose/Methods

One-group pretest posttest clinical trial was designed to evaluate the anti-allodynic effects of LA for cancer patients with OIPN (N=20). Laser (30 mW, 780 nm, 0.68 W/cm2) irradiated at Yongquan (KI 1), Taixi (KI 3), Neiguan (PC 6), and Daling (PC 7) of acupoints for 12 sessions, and then followed up 1 month after treatment. The main outcome measure was assessed by coldwater immersion, mechanical von Frey, and neurotoxicity severities according to NCI-CTC, Oxaliplatin-Specific Neurotoxicity Scale and Neuropathy Symptom Score.

#### Results

After 12 sessions of LA treatment, the neuropathic symptoms and neurotoxicity severity of patients with OIPN were significantly improved compared with those before treament. The thresholds of cold and mechanical sensation were also significantly elevated.

Moreover, these anti-allodynic effects of LA were still maintained at the 1-month follow-up visit.

#### Conclusions

These results suggest that LA is an effective treatment for patients with OICN on improvement of allodynia and neuropathic symptoms. The convenient and invasive LA regimen may offer an adjuvant therapy for reduction of neurological adverse effects of chemotherapy.

#### Comments

This on-going pilot study provides clinical evidences of the antiallodynic effects of LA on management of OIPN. A randomized, double-blind, placebo-controlled crossover trial were needed in future clinical trials.

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### Factors associated with uurses in cancer pain control

#### **SU Yi-Lin**

#### Introduction

Pain is one of most feared and intolerable symptoms of cancer patients. Therefore, nursing personnel who deal with pain management of cancer patients should have ability to pain assessment, because the knowledge of pain management that the front line nursing personnel have will affect their medical treatment on patient's pain and quality of medical services. The purpose of this study is to understand nurses's knowledge and attitudes of pain control and its related factors.

#### Purpose/Methods

This study use cross-sectional study with survey research to collect data through a structured questionnaire which answered by 150 nurses from a medical center in northern Taiwan and regional hospitals in March 2013. The questionnaire, 38 questions, consisted of two sections, including pain assessment and principles of medication that referenced . The data is statistical analyzed with SPSS 18.0 for windows software package.

#### Results

The total questionnaires were 150 copies, 143 valid questionnaires were collected, and recycling rate is 95 %. Our data showed that: Seniorities of nurses in questionnaire are mostly 3-6 years; Nurses takes non-drug treatments to relieve patient's pain first, 33.3% used massage and 30.0 % used deep breathing techniques; Points of informed doctor by nurses when patient feels pain , ≧ points(73.2%); ≦ points(12.8%); 4 points (14%); Accuracy rate of pain perception on nursing personnel was 68.2 %.

#### Conclusions



Patients often suffer from physical and mental pain that influenced the quality of their life deeply. nurses are very important for medical services team. If nurses have the correct knowledge and attitude, then he or she could execute pain control accurately, reduces the patient's pain, and reach the purpose of patient care.

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# Session P2.10: Studies and approaches to improve health literacy

From collection to diffusion of good practices of Health Literacy into the University Hospital of Parma

CAMPANIELLO Giovanna, ROBUSCHI Catia, CANALI Catia, RAISE Gabriella, VITALI Pietro, CASAROLI Rosanna, SIRCANA LUCA, DI CAMILLO Dante, DOVANI Antonella, BRUNETTI Massimiliano, MONTALI Francesca

#### Introduction

There is a growing number of initiatives, promoted by professionals, to create and disseminate information tools such as brochures, posters, leaflets, etc.. These instruments are delivered to patients and/or family members in order to promote their "health literacy". The Parma University Hospital has opened an internal initiative ("Call for proposals") aimed at professionals, in order to collect all the communication tools in use, published in print or in other formats, useful to transfer health information to patients and/or family members.

#### Purpose/Methods

- Ensuring an hospital mapping about information/health education initiatives dedicated on patients and/or family members, which are promoted and acted by professionals in various Structures. Valorizing the existing works and professionals' efforts to promote Health Literacy. Evaluating and validating the tools provided to patients and/or family members.
- Promoting the publication of instruments of Health Literacy through the Hospital Internet and Intranet site.

#### Results

The 29 Structures, which responded to the initiative (about 1/3 of the Hospital Structures into the 82% of the Departments), have delivered 49 tools. Among the collected instruments, the 51%

provides information useful for the access to facilities/services, while the 49% has promoted health education to patients and/or caregivers (eg. Regarding medical conditions, clinical/care stages, healthy lifestyles, etc..). Other tools, already widespread in the Hospital website, are considered already validated and therefore were not sent in adherence to the collection.

#### Conclusions

The initiative has allowed a first partial collection and evaluation of the process of the Health Literacy of patients and/or caregivers promoted in the Parma University Hospital. The initiatives transmission has allowed revision of some tools and the start of improvement projects, that have provided for the direct involvement of patients. The evolution of this project will allow comparison among professionals about the tools developed and validated for the adoption of measures for improvement.

#### Comments

In the launch phase the experience was presented to the Joint Consultative Committee (representing the expression of Citizens) and it will be further enhanced in support of the professionals' efforts for the Health Literacy promotion.

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Patients' attitudes towards information provided by nurses considering their health literacy level

### ZAGURSKIENE Daiva, MISEVICIENE Irena, PUNDZIUS Juozas

#### Introduction

Patients not always comprehend written and verbal health-related information provided by health care specialists, they experience difficulties in following the medical directions, appointment slips. The majority of patients often do not understand what they have been told by their physician; A patients' ability to take care of his health and to use health care services directly depends on his health literacy skills. The outcome of surgical operations also depends on preoperative preparation of a patient, providing the needed information and health education.

#### Purpose/Methods

The aim of this study was to evaluate patients' attitude towards information provided to patients by nurses considering their health literacy level. A cross-sectional study was carried out in eight randomly selected general inpatient hospitals in Lithuania.. STOFHLA (Short Test of Functional Health Literacy in Adults) was used for health literacy evaluation. 1030 questionnaires were distributed among patients. 876 were returned (response rate, 85.0%). Statistical analysis of the data was conducted using

Statistical Package for Social Sciences for Windows, version 13, and Microsoft Office Excel 2003.

#### Results

Every fourth patient with adequate health literacy (27.3%) and every seventh (14.0%) with inadequate health literacy indicated that nurses provided them with insufficient information about their disease, correspondingly 25.9% and 17.6% reported not receiving enough information on health status and 19.9% and 9.4% stated that nurses while communicating use a lot of complicated medical terms. More than every fifth patient with inadequate (22.7%) and 29.4% of patients with marginal health literacy 'never' or only 'sometimes' comprehended medical notes and terms in a hospital. Only few of patients (5.7% ) with inadequate health literacy indicated always asking nurse to repeat information they were concerned about. Patients' attitudes towards the information provided by nurse were related with their age, sex, education and living place: older than forty five years, women, patients with university education and living in cities were demanding more of health related information provided by nurse.

#### **Conclusions**

Patients with adequate health literacy, especially older, women, living in cities and having university education, are more demanding of the information related with their health status and disease, but less complaining about use by nurse complicated medical terms, than patients with inadequate health literacy.

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# Does the primary healthcare centre of salt help health literacy?

### PAGÈS-CADENA Núria, OLABARRIETA-ZARO Elena, FIGUERAS-BESALÚ Marina, ARBOIX-PEREJAMO Montse, JUVINYÀ-CANAL Dolors

#### Introduction

The Salt healthcare centre (Girona, Spain) provides assistance to 30,000 people, of 76 different countries. The sociodemographic characteristics make it particularly vulnerable from the point of view of health literacy: the immigration rate is 43% (mostly Sub-Saharan Africa, Morocco and South America); there is a low educational level, lack of job stability... The 80 people team is planning to introduce health literacy as a tool to improve patient safety and quality of care.

#### Purpose/Methods

To analyse the current situation of the centre from the perspective of Health Literacy, to identify problematic areas and suggest corrective actions, subsequently leading to the

improvement of the users' health. We will follow the model of "Ten Attributes of Health Care Organizations and the Health Literacy" by the Institute of Medicine of the National Academies, in North America.

#### Results

The analysis emphasises: \*The health providers do not have enough knowledge of the concept of Health Literacy. \*Lack of the users level of Health literacy. \*Information addressed to the standard user is inadequate for the population we serve (especially worrying in the medication plan and informed consent) \*Difficult to reach the healthcare centre and navigate through it. \*It does not take the user into account when designing and implementing health information and services.

#### Conclusions

From the analysis arise needs and actions, the priorities of which are: \*To train the professionals working in the healthcare centre in the field of Health Literacy. \*To understand the level of literacy of our regular users comparing ethnicity, socioeconomic status, educational level, age... \*To have healthcare professionals networking with other local institutions and cultural associations. \*To use different methods from the ones being used now so that the information to the user arrives properly, with their opinion.

#### Comments

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# Helath Literacy: a study of navigability within a Hospital

## FEBRE ALVAREZ Maria Jesus, PEREZ SEGARRA Anna Carol, KILLICK Andrew

#### Introduction

The term Health Literacy defines the capacity to obtain process and understand the information about health and health services necessary for people to make informed decisions about their health. One of the priorities of the Catalan Network of Health Promoting Hospitals is to evaluate the comprehensibility of the healthcare environment through the study of both navigation and the information the users receive. To do this, a study group was set up with representatives from all the hospitals in the network.

#### Purpose/Methods



The aim of this study was to determine the state of navigation in San Rafael Hospital in Barcelona. A navigability assessment tool was used which combined self-assessment by a professional who works in, and therefore knows, the hospital with an evaluation by an external assessor who does not know the hospital and takes a journey through different areas of the same.

#### Results

The result of the evaluation is intended to establish a quantitative evaluation on a numerical scale of 1-6 from least to greatest difficulty and a qualitative assessment, identifying aids or obstacles found while navigating in the Hospital grouped into the areas of accessibility, security, general environment (including a description of printed texts, language, maps and visual and physical elements) and staff. The results of the two assessments were put together for the drafting of the final report.

#### **Conclusions**

The results of the evaluation of navigation in San Rafael Hospital identified obstacles to comprehensibility in aspects of the hospital environment, including poor readability and display of signs, the use of scientific language, a lack of consistency in the terminology used, a lack of maps and of translation into other languages. All of these factors were included in the action plan to improve the hospital, taking care to conserve the excellent aspects also identified by the study.

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# Health information through videos in health centers. The case of mother and child health

## PRATS Blanca, ROMERO Mª Auxiliadora, Eulàlia ROURE, CABEZAS Carmen

#### Introduction

Pregnancy and infancy are very important periods for the development of the human health. For this reason, the interventions to improve the health care of the child and mother during this period are priorities. Breastfeeding advice, health education and mother and child health promotion during the pregnancy, the delivery and the postpartum are effective interventions to increase health.

#### Purpose/Methods

To use subtitled videos of short duration (maximum 2 minutes long) without sound at the hospital and health centers waiting rooms. Advice relating to the preventive activities during this period of life, breastfeeding counseling and the health care and child security are shown in 170 health centers' of Catalonia. Videos are tailored to target population and the special conditions of the health centers' waiting rooms: big typography, language adapted to population with low literacy skills.

#### Results

Six videos were made. The messages are written in a positive way linked to attractive pictures to catch the attention and population's interest and to help to understand messages. Plain language and selected images make comprehension easier to new arrived population with language difficulties. The main topics promoted are: 

Pregnancy: healthy life style and preventive counseling

Breastfeeding: benefits of the breastfeeding (physical, psychological)

Infancy: promotion of the pediatric screenings and follow-ups, health and life style counseling

#### Conclusions

These videos have been seen approximately by 2.360.000 patients. This initiative promotes: • Health education during pregnancy and childhood. • Scheduled pediatric screenings and follow-ups • Health gains and decreases the morbimortality of this target population through primary health care. Shortly the program will be extended to 500 screens thus triples the dissemination of the message.

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#### **INEM TV**

### DEPARTMENT Marketing and Communication

#### Introduction

INEM TV is an online TV channel produced by National Institute of Emergency Medicine (INEM). Created in 2011, the main goal of INEM TV is to provide educational content to citizens, so they can learn how to act in case of a medical emergency.

#### Purpose/Methods

INEM TV is a useful source of information about medical emergency. Through videos produced by INEM, people can learn how to deal with serious health conditions – burns, intoxications, convulsions, traumatic injuries, bleeding, etc. INEM TV also focuses on raise awareness of stroke, heart attack or cardiac arrest warning signs and symptoms, in order to educate people to dial European Emergency Number - 112. Videos in INEM TV are categorized by subjects: Institutional, News, Emergency, Questions, Health Campaigns, Public and Partnerships.

#### Results

Currently, INEM TV has published 188 videos online: 27 videos about procedures in emergency medicine; 15 institutional videos; 62 videos with emergency medicine news related; 3 videos responding to frequently asked questions about INEM's performance; 29 videos made by INEM fans; 13 videos about public Health Campaigns; 36 videos from other organizations

#### Conclusions

INEM TV is an innovative project promoted by INEM, in order to reach people attention on health issues. This project promotes the increase of health literacy, since it offers helpful information about medical emergency.

#### Comments

INEM TV videos are also released in other media, such as social networks, INEM's website, INEM's digital newsletter and blogs. Videos that explain how to deal with health conditions are translated in Portuguese sign language. The goal is to make INEM's messages reach more people.

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# Health Literacy standards in written comunication at Consorci Sanitari del Garraf

## ANA Jimenez, JOANA Ruiz, ROSA MARIA Simon

#### Introduction

A comprehensive health information contributes to better self-care and control of the own diseases, make informed decisions about our own health and lead to a healthy lifestyle. The recent studies show that there is a direct connection between low literacy levels and bad health outcomes: increased hospitalization risk and lower control of the own disease. Our aim is to make the writing information understandable for our patients regardless of education level and previus health knowledge.

#### Purpose/Methods

The aim of the Consorci Sanitari del Garraf is to follow the 6 principles to develop an effective written health information: 1. Plain language, specific and useful 2. Structured information 3. Style simple, direct and easy to read 4. Positive and motivating, that moves to action 5. Visual aids 6. Evaluation of comprehensibility by patients target Defined 3 phases to adapt existing written documents to the new principles. 1: Reedition of non useful or difficult documents detected (30%). 2: Documents with instructions to follow treatments properly (40%) 3: other documents

#### Results

Implementation of Phase 1 achieved (35 reedited documents) An average of 81.7 % improvement in the understandability of documents, after patients evaluation. Reduction of 50% of the retesting (fluxometries) due to right following of the preparation instructions by the patient.

#### **Conclusions**

A proper health written information, understandable to most patients, regardles of their educational level, dues to a better

health care and helps to reduce the risk of complications. In our hospitals, the new written leaflets with instructions to prepare some exams have been more understandable by patients and have reduced the need of reprogramming the test.

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How is possible improve empowerment patient's with written educational materials?

### BORRELL Nuria, FERNÁNDEZ Monica, PADILLA Catalina, GONZÁLEZ Sergio, VISO Lorenzo, ESTEVE Jesús

#### Introduction

Health literacy (HL) is define as the wide range of skills, and competencies that people develop to seek out, comprehend, evaluate and use health information to make informed choices, reduce health risks and increase quality of life. Patients often receive a large amount of information in a short period of time at discharge when medical terminology is commonly use. Research has shown that low HL is associated with low self-efficacy, limited disease knowledge, poor self-management skills, higher incidence of hospitalization and higher mortality rates.

#### **Purpose/Methods**

Develop information brochures in biliary and colorectal pathology with readability criteria. Facilitate patient understanding, management of their disease and increase level of HL.

#### Results

1- Review of literature about how to develop written educational materials: First of all, define goals including illustrations, secondly choose target audience, and finally use simple language and say things in positive way. 2- Purpose of brochures is explain pathology, signs and symptoms, surgery process, domiciliary care and warning signs. 3- Brochures target are patients with low level HL. 4- Creation of two brochures, in colorectal and biliary pathology. 5-

Assessment brochures with the instrument INFLESZ $^{\otimes}$ , normal degree classification.

#### Conclusions

Strategies are necessary to ensure that hospitalized patients receive comprehensive educational materials at discharge. Therefore, professionals must be fully aware of the content, readability and suitability of written materials to increase Patient's health literacy which is essential in effective health communication.

#### Comments



Improving health literacy requires multidisciplinary approach: it needs a commitment from all relevant areas: education and health, pharmaceutical industry, mass media, representation of health workforce and of course, those with political responsibilities.

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Analysis of the readability of information sheets of Consorci Hospitalari de Vic

### GUITERAS MAURI Carme, RAMON BOFARULL Isabel, ORDEIG IGLESIAS M.Angels, PALAU LOPEZ Alex, CARRERA GOULA Raquel

#### Introduction

Health literacy is the ability to obtain, read, understand and use information to make appropriate decisions, follow treatment instructions, improve adherence and decrease security risks. For this reason, it is essential that hospitals work to improve communication with patients. In 2013, Vic Hospital consortium has been working on developing written information to patients in order to make it as much understandable as possible.

#### Purpose/Methods

To analyze the readability of host and specific test information sheets. In 2013 a statement for the elaboration of documents has been written by the Quality and Communication Department which also centralizes the final revision. A computer program called Inflesz is used to evaluate a text written in Spanish. It calculates nine parameters: words, syllables, phrases, average syllable / word, average word / phrase, Flesch –Szigrist index, and degree in Inflesz Scale, Word correlation and Flesh –Fernandez-Huertas formula.

#### Results

We analyzed five host information sheets and nine information sheets. In 100% of host sheets Flesch index/Szigriszl, the score has been between 65-80, which corresponds to the degree "fairly easy" on the scale Inflesz (primary education, success novels..). In the test sheets, the 66.6% has been also fairly easy and in the remaining 33.3% the score has been between 55-65 in grade normal (obligatory secondary education, read general press ...).

#### Conclusions

The involvement of the quality department has been a key point to achieving an easy reading comprehension. The Readability of 100% of the host information sheets fulfill the recommended standards while it is necessary to further simplify the information in a percentage of information test sheets, considering that the recipient of the information is a citizen with a basic level of

training. It is a limitation on the scale of measurement related to the understanding of words and technical terms.

#### Comments

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Analysis of information materials addressed to patients and relatives in a tertiary hospital

### JANSA Margarida, BERTRAN Ma Jesus, VILARDELL Jordi, CADENA Roser, GARCIA Ferran, ESCARRABILL Joan

#### Introduction

The quality of information materials given to patients and relatives is the first step to promote self-care. Health Promoting Hospitals (HPH) recommends materials with an evidence-based content, with specific typographic and language legibility and target population evaluation.

#### Purpose/Methods

To identify and analyze patient information materials in any format used in a tertiary hospital. Cros-sectinal study through an online survey registering: department identification, title, group of patients and/or relatives, material type, authors, edition year, promoters, and health care professionals (HCP) proposals. The survey was sent to HCP who registered data obtained from September-December 2013. A copy of the materials was sent to the Communication Department. Descriptive statistical analysis was made. A focus group analyzed the materials following HPH recommendations.

#### Results

258/324 registries were analyzed (chronic patients/relatives-86%, acute patients-7% general population-7%). Materials (leaflets-54%) were mainly addressed to diabetes-18% and cancer-14% patients/relatives. 55% did not refer authors and 43% omitted edition year. The promoter was the hospital in 60% and pharmaceutical industry in 10%. 69% of materials followed HPH recommendations regarding format. HCP proposals were: unification of criteria and design formats adapted to different cultures and accessibility via web; new topics; list of accredited websites; transversal utilization in different hospital departments/primary care.

#### Conclusions

Despite the identification of many materials, only a few followed full HPH recommendations. This analysis will allow the definition of hospital policies related to information materials. The open online survey tested in this study can be used for monitoring the

quantity and quality of information materials in our hospital. It's crucial to disemitate HPH recommendations in order to improve materials.

#### Comments

An interdisciplinary working group could be useful to assess new information proposals and to promote the coordination among different Department in the hospital and also with different health care providers in the community.

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Standards of written communication in Health Literacy: From theory to practice at Consorci Sanitari del Garraf hospitals.

### JOANA Ruiz, ANA Jiménez, M. JOSE Rasero, ROSA Simón

#### Introduction

A comprehensive health information contributes to better self-care and control of the own diseases, make informed decisions about our own health and lead to a healthy lifestyle. Recent studies show that there is a direct connection between low literacy levels and bad health outcomes: increased hospitalization risk and lower control of the own disease. Our aim is to make the writing information understandable for all our patients regardless of education level and previus health knowledge.

#### Purpose/Methods

The objectives are: - Decrease the number of failed tests (fluxometries) because of a wrong preparation (<30%). The instructions provided in our first written information were unclear and difficult to follow. - Empower patients to manage their side effects properly and come to the emergency services only when it is apropriate. Review the content, define the structure and order of the information, select the highlights and the most important information to rewrite in a direct and plain language. Include full of positive expressions that moves to action. Define and collect visual aids. Evaluate and validate target document information with patients.

#### Results

Evaluate and validate target document information with patients. Fluxometries: reduce the recitations 22.3% of patients due to improper preparation Chemotherapy: a guide for patients and families. Qualitatively we found that patients accept and correctly handle the side effects of chemotherapy. The phonecalls to the Day Hospital of Oncology were increased by 48%, reducing the visits to the emergency department.

#### Conclusions

A proper health written information, understandable to most patients, regardles of their educational level, dues to a better health care and helps to reduce the risk of complications. In our hospitals, the new written leaflets with instructions to prepare some exams have been more understandable by patients and have reduced the need of reprogramming the test.

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# Project of dosimetric benchmarking for development interventional radiology consent form

# CAVEDAGNA Davide, GALEOTTI Roberto, SALVIATO Elisabetta, CHIARINI Michele, ANTONIOLI Paola

#### Introduction

The study of radiation protection and radiation dose in an angiographic room is essential in order to identify the most appropriate measures to protect patients and health workers

#### Purpose/Methods

To develop an informative consent form that can be read and understood by a patient with a low level of education and which contains the average dose delivered to the site angiographic procedure. Awareness and dosimetric comparison of the levels of risk for the patients 1: Bibliographic research, site dose report. The analysis of dosimetric parameters: cumulative DAP, fluoroscopy time and Kerma. 2: Data Analysis 3: Actions of radiation protection and dose reduction. Optimization 4: Development of communication forms and radiological risk

#### Results

The dosimetric analysis has developed a real optimization technique with the aim of maintaining clinical performance and reduce both the exposure time that the radiation dose. Here are some measures in place: -reduced use of road map -use of the smart-mask -removal of the fixed grid in pediatric patients -dpi operators and patients; iposcopiche bulkheads, furniture and cabinets. optimization of low-dose protocols (low)

#### **Conclusions**

An angiography consent form has been developed with radiological risk that can be understood with an low level of education. It should allow patients to more easily understand the procedure and its risks, benefits, and alternatives.

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# Session P2.11: Improving diet, exercise and weight management in hospital staff

# A study on the health behavior and status of medical personnel

## CHANG Rei-Tung, TSENG Wan-Ting, CHEN Fang-I, ROAN Jin-Sheng

#### Introduction

The financial pressure has forced the healthcare institutes to gradually cut down personnel costs resulting longer work hours and higher work pressure for the medical personnel. This study investigates such an impact on the health behavior and health status of the medical personnel and analyzes the relationships among their personal characteristics, hearth behavior, and health status. The results could be a reference to better medical personnel management.

#### Purpose/Methods

The objects of this study were the 1,351 medical personnel of a medical institute in southern Taiwan. A questionnaire covered demographics, hearth behavior, and Short-Form-36 Health Survey (SF-36) was distributed and 966 (71.51%) valid responses were returned. SPSS20.0 was first employed to provide descriptive statistics, followed by a structured equation modeling tool, SmartPls 2.0, for hypotheses testing.

#### Results

Although medical personnel had an average body mass index (BMI) of 23.4 which was within the normal range, 15.78% females and 22.35% males exceeded normal waist measurements. Moreover, every one out of three medical personnel did not exercise regularly which put them under the threat of obesity. Data analyses also revealed that there were significant relationships among personal characteristics, hearth behavior, and health status.

#### Conclusions

The health of medical personnel is important to the provision of good medical treatments for the patients. It is a responsibility to be shared by both the personnel themselves and the institutions. The administration should pay attention to employee work load and provide self-managed heath activities that are integrated with employee work content in order to improve personnel health and provide a competitive work environment.

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# Research on physical fitness and life quality of employees

## CHEN Fang-I, CHEN Wen-Chun, CHEN Chuan-Yu

#### Introduction

Medical professionals, who are the most valuable property of a hospital, are a group under high pressure that negatively implicates health and quality of work. Therefore, it is undoubtedly to say that diversity management for health and life quality of employees is very important. Four factors of physical fitness encompasses cardiovascular fitness, muscle strength, flexibility, and body composition. By applying assessment of the fitness, the employees, as well as employers, are able to realize the health status of their own and, further, actively prevent potential threats of diseases.

#### Purpose/Methods

This transversal study aims to investigate the correlation between physical fitness and life quality of medical professionals. 1030 subjects, worked at a regional teaching hospital in Taiwan, attended the session for assessing the fitness and the quality of life. The rate of effective feedbacks is 69.74%. This study applied the 3-minutes step test to evaluating the fitness and the SF-36 questionnaire to the quality.

#### Results

The study applied structural equation modeling (SEM) to analyzing the 1030 effective data of which the average age of the subjects is  $36.56\pm9.835$  years old. The result indicates that the cardiovascular fitness is positively and significantly line with the age of the subjects (p < .05). Furthermore, there is positive and significant difference between the cardiovascular fitness and the quality of life, achieving significance in factors of body functions, constraints of activity, social functions, and mental health.

#### Conclusions

The WHO research of the risk factors has revealed that more than 2 million deaths per year is the result of lack of physical activities. The professionals with better physical fitness and cardiovascular abilities have greater quality of life. Therefore, it is an effective way of promoting health and life quality of medical professionals that the hospital should advocate to facilitating the achievement of healthy work conditions and to encouraging the professionals to improve their fitness abilities and realize the health status.

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Does Working in Hospital increase the risk of Obesity and hyperglycemia?

### CHEN Meng-Kan, LAI Ho-Hsien, HUNG Ying-Hua, PENG Tzyy-Yu

#### Introduction

Obesity related disease cause economic burden and working loss in hospitals. Medical staffs working in the hospital are the first line to against diseases. However, immobilization and unhealthy dietary habit have been a major health problem in our hospital staff demonstrated in previous survey. For further investigating the cardiovascular risks in hospital employees, a cross-sectional study was conducted to compare the risk factors of cardiovascular disease between hospital employees and electronic factory employees (the major occupation in Hsin-Chu City).

#### Purpose/Methods

In 2012, a population of 111,516 employees from the dataset of annual health checkup in National Taiwan University Hospital Hsin-Chu Branch (NTUH\_HC) was enrolled and divided into the hospital employees group (1119) and electronic factory employees (10397) from the same administrative district with NTUH\_HC. Several cardiovascular risk factors including obesity, hyperglycemia, dyslipidemia, waist, and hypertension between groups were compared. Logistic regression model was used to estimate the adjusted Odds ratio between groups after adjustment for sex and age.

#### Results

The hospital group tended to be older and more female employees among hospital group were observed. In terms of obesity (BMI>=27 kg/m2) and hyperglycemia (fasting sugar>=100 mg/dl, the hospital employees had a 30% higher risk to be obese (Odds ratio: 1.30, 95%Cl: 1.10, 1.54) and a 31% higher risk to be hyperglycemic (Odds ratio: 1.31, 95%Cl: 1.04, 1.65) after adjustment for sex and age. There was no significant difference in the aspects of dyslipidemia, waist, and hypertension.

#### Conclusions

By controlling other environmental factors (two groups from the same administrative district), we demonstrated hospital employees had a higher risk to be obese and hyperglycemic. Working in hospital may lead to sedentary life and unhealthy dietary habits, which are associated with the occurrence of obesity and diabetes. Although, further study based on individual factors is warranted to pinpoint out the exact causes, more effective strategies focusing on obesity and hyperglycemia are needed to promote our hospital employees' health.

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# The Healthy Nutritional Vision by a Dietitian, and Treatments for Night

# Workers Staff in Tartu University Hospital

#### KIISK Liidia

#### Introduction

The time for improving working conditions of the hospital staff become: healthy food, rest, recreation possibilities. We worked out a healthy lifestyle programme for night shift workers at the hospital. The aim of the study was to describe the accessibility to food as well as eating habits of night shift workers to compile local recommendations.

#### Purpose/Methods

This descriptive study has been compiled on the basis of work accounts and the analysis catering service of the feedback of the target groups. The study was carried out at Tartu University Hospital (TUH) in Estonia that consists of 17 clinics with 3,454 filled positions in 31 December 2012, and, there are two kitchens.

#### **Results**

TUH kitchen in the ambulatory service building prepares food on spot and caters for mainly staff working in the policlinic, for students and patients in the canteen on spot. There are about 800 eaters every day. The second TUH kitchen makes all the foods on spot catering in the hospital building on average for 900–1000 patients and in the canteen-cafeteria for the staff, students, and visitors. There are also about 800 eaters a day. The canteen functioning time every day is 08.30 AM to 18.00 PM. In the corridors of the hospital there are drink and packed food automatic sales points during 24 hours. Night shift staff usually takes light food from their homes or order hot meals from the city night catering service which transports the food to their workplaces.

#### Conclusions

The developing organization into salutogenic workplaces is a very important as a part of healthy nutritional treatments for the staff. The Hospital Cafeteria prepares healthy and a calorie restricted food by day time but not during the night. It is necessary, that the organization offers of healthy eating for the hospital night workers with optimal menus composed of healthy food nutrients. The correct night food should guarantee the energy and nutrients necessary for the balance in the body. Information and counselling are provided for workers by nurses and by dietitians and by certified medical doctors.

#### Comments

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# The effects of project to reduce sodium amount at the employee cafeteria on dietary behavior

### HA Jin Kyoung, LEE Hee Young, CHOI Jung-Seok, LEE Hae Won, YOON Kang Sup, YOON Jong Hyun, LEE Sang Hyung

#### Introduction

According to Korean Food and Drugs Administration (KFDA), the Korean daily sodium consumption is 2.4 times higher than WHO recommendation (< 2000mg per day). High sodium diet increases the risk of cardiovascular disease, hypertension, stomach cancer and other diseases. As a part of the national effort to reduce sodium consumption, Boramae Medical Center initiated a project to lower amount of sodium in hot soup offered in the employee cafeteria to promote employee health and to provide an opportunity to learn healthy diet behavior and modify diet habit.

#### Purpose/Methods

The project was carried by collaborated work of Boramae Medical Center HPH team and the hospital employee cafeteria. Prior to the study, the sodium content of each soup dish in the cafeteria was around 0.7 – 0.8%. The cafeteria gradually lowered the sodium content to 0.5%. A promotional campaign to educate employees on the importance of reduced sodium consumption was initiated. There were before and after surveys for salty taste sensitivity and preference of 48 participant employees to evaluate the impact of the project by using a salty taste testing kit. We also carefully monitored complaints by the cafeteria users regarding the alterations in food taste.

#### Results

The result of the survey for sensitivity and preference for salty taste showed that the preference of salty taste and the diet habit didn't change much after the project. And the salty taste testing also showed no meaningful change in salt sensitivity during the study. However, complaints about food taste received from cafeteria users continued to decrease to virtually none. Interestingly, there were increased requests for reducing sodium content in other dishes offered at the cafeteria.

#### **Conclusions**

At the beginning of the project, there were many complaints about cafeteria food taste every day. At present, however, the number of complaints has decreased to virtually nil and instead, we receive additional requests for reducing the amount of sodium in other dishes. We are encouraged that this is the result of the employees becoming used to the reduced-salt soup dishes and that the project may be providing employees with an insight on the importance of healthy diet and an opportunity to modify their dietary habit.

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### Vegetarian Cuisine Club for Hospital Staff As an Effort to Promote Healthy Behaviors and Salutogenic Environment in the Hospital

### CHEN Ming-Hsiang, TSAI Pei-Shan, WU Lu-Hsuan, CHEN Joyce

#### Introduction

Hospital working environments are known to be fast-paced and highly stressful. At Taipei Tzu Chi hospital, employee interest clubs are used to establish friendship between like-minded staff, promote healthy behaviors and develop positive strategies to deal with stress. Combined with Buddhist teachings, vegetarian cuisine club restores mind and body balance in many hospital staff members.

#### Purpose/Methods

The study aims to examine the effect of vegetarian cuisine club on the health of hospital staff members. Monthly club activities included cooking classes, field trips and fundraising. The club used different strategies to attract members, including low entry fees, pay-per-class options and hot lunch before class. The primary goal of this club was to lighten stereotypical impressions of vegetarian food as being "boring" and "nutritionally imbalanced". The secondary goal was to create a bonding platform for staff.

#### Results

Since 2009, more than U.S. \$2,500 was raised for international disaster relief. Club members included nurses, doctors, pharmacists, dietitians and administrative staff. In a survey, 62% of participants felt that their knowledge in vegetarian cuisine and in seasonal produce has increased. Interviews results showed that the club has helped strengthened friendship, developed empathy for other professionals and relieved stress from work. The benefits extended from healthy food to healthy minds.

#### Conclusions

The vegetarian cuisine club is an important platform for professionals to exchange information and develop friendship. Through sharing common beliefs and practice, participants have created a salutogenic workplace for themselves. Other hospitals may use similar strategies to promote healthy working environment for their staff.

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# Experience sharing in health diet promotion in NTUH

### KUO Yueh Hsia, CHEN Pey Rong, PENG Hui Yu, PAO Chen Chi

#### Introduction

According to the NTUH Staff Medical Check-up Report in year 2011, approximately 36.8% out of the 3362 staffs have a BMI over the normal range(24). Therefore, our institute decided to establish a series of healthy eating programme, involving the public affair department, information department, general office, and security office. It is highly supported by the directors. This healthy eating programme focused on many factors which include diet, exercise, lifestyle and medical advices. Eventually, programme aims to advocate for better health and maintenance of healthy body weight

#### Purpose/Methods

A. Educational advocacy: healthy eating talk , 18-24 weight control talk, develop e-learning through videos: online newspaper regarding health and healthy recipes posted on the nutrition department's website, online nutritional quiz。 B. Healthier food choices for public places。 C. Prepare and provide healthy dishes for Chinese New Year - low oil and sugar, incorporated with online e-ordering and e-receiving of meals。 D. Counselling and advising catering services about new dining cultures, provide calories label for a varieties of meal E. Launching weight-loss classes for staffs 。 F. Staff hiking trip - A combination of education and recreation。 G. Provide free individualized nutritional consultation and body composition test.

#### Results

The satisfactory score of this programme reached an average of 94.3. Healthy lunch boxes have been served to about 1200 staffs every day. Furthermore, percentage of overweight staff has been reduced from 36.8% to 26.2%. Staffs enrolled in the 2-months weight loss class. 72% of them met the weight loss goal which is 2 kg. Also, there was a 1.64% reduction of the participant's' average total body fat. Mean BMI before and after the weight loss class were 27.7 and 26.9 respectively, hence an average of BMI 0.8 reduction was observed. Currently, all the food sold in the staff's food court is labelled with calorie content.

#### Conclusions

Disease prevention and health promotion become an important task in our hospital and society. We create a friendly environment for study and eating healthy diet. Expertise from different areas provides the public comprehensive health related knowledge to help people to raise awareness of importance of health and to live in a healthy life style. Via healthy choice for foods and proper food preparation, it also enhance their quality of life.We will continue this program long time .

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Interventional employee health promotion activities - to enhance self-efficacy dietary management

### LIN Hung-Chih,, SIAO Rxo-Yan, LIN Shu-Mei, LIU Chin-Tsang, CHUO Ying-Hsiang, HUANG Hui-Ting, JOU Hei-Jen

#### Introduction

Healthcare workers are suffering from extra-stress because of the special working condition and lack of respect of patients and their families. This results in greater turnover rate and even shortage of nurses which makes the healthcare managers start to pay attention to the psychological problems of their employees.

#### Purpose/Methods

The purpose of this study is to find out the effect of psychological improvement for hospital workers by establishing a model of stress reduction. Ten percent of hospital workers (totally ninety workers) from four divisions – physicians, nurses, paramedical, and administrative, were recruited in this program. The program included 6 lectures for mental health, 2 for health eating, 6 for exercise, 3 spiritual movies, 35 evangelical activities and one outdoor stress-reducing activity.

#### Results

The results were evaluated by Brief Symptom Rating Scale (BSRS) and Chinese Health Questionnaire (CHQ), which showed significant improvement in workers of four divisions. The mental health scores of CHQ increased significantly in all workers of four divisions, with 51% decreased number of unhappy workers (193 workers). The number of workers with moderate and sever psychological problems decreased by 58% (198 workers) as shown in BSRS.

#### Conclusions

The model of stress reduction in healthcare workplace actually improves the incidence of psychological problems and associated depression. This may further lead to resolution of high turnover rate. The stress-reducing model for employees at Taiwan Adventist Hospital involves EAPs (Employee Assistance Programs) operated by a psychological counseling professional. By creating a stress-relieving channel, a hospital is expected to be a happy working place with sound interpersonal relationship.

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Impact of eating long-term vegan meal on non-medical staffs' eating



# behaviors and living habits in a healthcare organization

TSAO Chang-An, LIN Yu-Fang, KUO Shi-Ching, HOU Yi-Cheng, WENG Pei-Chen, CHEN Yi-Chun, WU Jing-Hui, WU Jie-Ying, CHAO You-Chen, CHIANG Cheng-Yang, HU Fang-Ching

#### Introduction

Vegetarian diet is a healthy way to maintain adequate nutrition. In Taipei Tzu Chi General Hospital, staffs' satisfaction with the vegan meal has been demonstrated in previous studies. The objective of this study was to assess the indirect effects of eating long-term vegan meal on non-medical staffs' eating behaviors and living habits.

#### Purpose/Methods

Participants were 32 non-medical staffs at Taipei Tzu Chi general hospital, who had vegan lunch on workdays from January 2012 to December 2013. Participants were asked to complete a questionnaire about healthy eating behaviors and living habits.

#### Results

Among all participants, 9 are vegetarians, and 23 are omnivores. The reasons for ordering vegan meals are convenience, price, and health promotion. Interestingly, 40% omnivorous participants ate vegan diet not only in hospital but also elsewhere. Moreover, 91% participants reported a strong motivation to promote vegan diet. Participants' eating behaviors and living habits also improved. 87% participants ate three meals, 84% participants ate three bowls of vegetables, and 69% participants ate two bowls of fruits regularly at least 3 days/week.

#### **Conclusions**

This survey suggests that the vegan meal in the healthcare organization has been well accepted and effective in promoting better dietary and living habits. Future studies should be continued to explore long-term effects by analyzing non-medical staffs' health examination results.

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Analysis of factors needed for continuation of the Health Challenge

SAWAYAMA Sayaka, DOI Nao, TAKEICHI Kazuhiko, NEGISHI Kyota

Introduction

Our hospital joined the HPH program in 2011 and we implemented our own Health Challenge in 2012 for 2 months with 34 staff members joining. For this, our second year, we implemented the program once again with the goal of involving every staff member. As a result, 166 out of 210 staff members joined the challenge. Evaluation of this result allowed for analysis of the factors needed for success of the Health Challenge.

#### Purpose/Methods

Challenge Sheets and questionnaires collected after the Health Challenge were analyzed in order to discover what influenced changes in the attitudes and behavior of staff members. Staff were separated into two groups, those whose whole department was working toward a set goal and those whose departments weren't, and records were checked in order to measure any differences in the rate of continuation (habituation).

#### Results

For the group in which whole departments undertook the Health Challenge, the rate of members who continued for the whole month was quite high and there were several examples of staff who, by participating, experienced a decrease in weight and an increase in strength. In the questionnaires for this same group, the rate of those who answered that they would like to continue were also high.

#### Conclusions

In order to increase health awareness, individual effort is not enough. Involving the whole group results in a higher level of success. For this to happen, leaders are of tantamount importance and management of those responsible for improving the health of staff can make an important difference in results.

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The feasibility, acceptability and outcomes at an 8-week follow-up of a workplace-based healthy eating intervention for overweight employees in the Health Promoting Hospital (HPH): first interim analysis

#### HAN Jong Soo, LEE Kiheon, KIM Yungjung

#### Introduction

Healthy eating means well-balanced diet in calories and nutrients. Healthy eating is essential for reducing the risk of obesity and metabolic syndrome. HPH can promote the health of employees by providing the healthy eating.

Purpose/Methods

The aim of this pilot study is to evaluate the feasibility and acceptability of the healthy eating program in the HPH. We recruited participants with BMI 23 or greater. Participants completed a questionnaire about their eating habits. We started to provide calorie-restricted and low-salt diet lunch to participants on December 9, 2013. We investigated the baseline characteristics of participants and participation rate in the first 8 days of total 8-week program.

#### Results

Forty-five male and sixty female participants have enrolled in the program. The baseline BMIs are 26.1±2.3kg for males and 25.6±2.4kg for females. Male participants were drinking alcohol and smoking more than females. Males are physically active than females. There were no differences in eating habits between males and females, except female participants eat fast food more than males. 68 participants have had a healthy eating every day. Meanwhile, 23 participants missed their healthy eating once for 8 days.

#### Conclusions

The result of first interim analysis showed high participation rate. It suggests that our healthy eating intervention in the HPH may have high level of feasibility and acceptability in the final analysis.

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### KKH The Healthy Loser 2012

## JOSMAN Nicky, L.T.LOW Garett, S.G.ONG Sally, W.K.TONG Jasper

#### Introduction

In the annual staff health screening exercise 2012 at KK Women's and Children's Hospital (KKH), Singapore, 16.1% of staff were classified as overweight/obese (Asian BMI >= 27.5 kg/m2). These individuals face a higher risk of reduced life expectancy by 2-10 years. Therefore, the KKH Healthy Lifestyle Committee (HLC) created a platform for employees to achieve healthy body mass by organising the "KKH Healthy Loser 2012" contest.

#### Purpose/Methods

The contest allows employees to register as a team in achieving a healthy body mass. Body mass was measured on all participants in the group on 23 July 2012 and the final weighing in on 24 Sep 2012. Participants were encouraged to have their own strategies to lose body mass but HLC facilitated with a series of physical activities during the period for staff in general. The group that lost most body mass (in percentage) was declared the winner.

#### Results

Forty-nine teams consisting 233 employees took part in the contest. A total of 185 kg (1.2%) was shed in the period of 2 months with an average of 3.8 kg per team. The top 3 winning team lost 45.7 kg (5.4%), an average of 15.2 kg per team. The top

3 winning teams were interviewed and their strategies were shared through institution forum and email blast so that other employees could model their approach in achieving healthy body mass.

#### Conclusions

The contest was a success. A high participation rate and the favourable results encouraged us to hold the contest again for the following year. HLC spent \$1.62 per kg loss and we would use this as a benchmark for subsequent contests. We had also gathered and evaluated all feedback from participants to improve the next contest.

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Effect of Weight reduction campaign on the improvement of metabolic abnormalities of Healthcare Workers in a Medical Center in Taiwan

### CHEN Kuan-Yu, YEN Chia-Miao, YANG Yi-Ching

#### Introduction

Metabolic syndrome isn't a true disease, but a cluster of risk factors which identify individuals at increased risk of developing chronic conditions such as type 2 diabetes, cardiovascular diseases and related morbidity and mortality. Metabolic syndrome is common among individuals with overweight, obesity and especially abdominal obesity We echo the campaign of "Healthy 100 Taiwan Get up" from Health Promotion Administry and conduct this study.

#### Purpose/Methods

This study was conducted for 6 months from Apr to Sep 2013. The study groups were consisted of the hospital staff having metabolic syndrome (n=79) or non-metabolic syndrome (n=1341). We encouraged all the staff to report their body weight and waist circumference every month on the website. We linked the annual health checkup data and adopted the diagnostic criteria from Health Promotion Administration of Taiwan to define the metabolic syndrome.

#### Results

A total of 1,420 staff (1,258 female and 162 male) participated this activity. The initial mean body mass index (BMI) in Apr 2013 was 22.2± 3.3 kg/m2. During the 6 month of weight losing campaign period, using "health promotion talks", "health information posters", "health Marquee information" and "staircase health promotion slogan" to improve employees' motivation to weight control. After a 22-week follow-up, the mean weight of staff with metabolic syndrome reduced 1.0 kg, while staff without metabolic syndrome reduced 0.2±0.1kg.



#### Conclusions

For staff with metabolic syndrome, Court Case Managers made telephone call and personal visit, gave them customized health counseling including, physical activity counseling and dietary education, taught them self health care management to reverse their unhealthy lifestyle.

#### Comments

In the future, we will extend this program to all the staff in hospital.

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# Nurses fat weight improvement projects

#### TSAI Ching Fen, LIU Hsiu Fen, CHEN Hsin Yi

#### Introduction

The study aims to investigate the association between body fat, diet, exercise and lifestyle among nurses conducive to promoting body fat and body weight control, enhance the skills of self-management of body weight and prevention of obesity.

#### Purpose/Methods

We recruited 50 volunteer participants with average measured body fat of 30.4%, BMI: 23.1Kg/M and abdominal circumference(AC): 78.5 cm. They are all potential overweight patients. The participants were equally divided into two groups: the control group participated in the group lessons and aerobic exercise based on the "Health Weight Management Plan" manual, while the other group self-managed exercise and diet based on the same curriculum.

#### Results

Two months later, the data showed decreasing body fat from 30.4% to 29.5%, decreasing BMI from 23.1 Kg/M to 22.4 Kg/M and decreasing AC from 78.5 cm to 75.5 cm for the control group. These data are much better than the other group.

#### Conclusions

In conclusion, by group lessons, we can enhance the skills of selfmanagement of body weight, develop habits of balanced diet and regular exercise and control body fat and body weight effectively.

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# The Methods and Experience of Tungs' Taichung MetroHarbor Hospital in Promoting Healthy Weight Loss

#### **HU Ya-Ling**

#### Introduction

Tungs' Taichung MetroHarbor Hospital held a healthy weight loss competition between July 1 and September 30, 2013. Competition rules were designed to improve weight loss motivation. The hospital established an eat-smart and happy-exercise environment; they held several health education speeches to promote the correct concept of diet and regular exercise. Overall, 1056 people participated in the competition and lost a total weight of 2688.6 kg, an average reduction of 2.55 kg per person, which was remarkable.

#### Purpose/Methods

The competition was held between July 1 and September 30, 2013, and organized for hospital employees and their relatives, friends, patients and their families, and community members. The purpose was to improve motivation for personal weight loss and thereby to implement a healthy lifestyle. Promotion method: The theme of the promotion was to eat smartly, exercise happily, and measure body weight every day. The Ottawa Charter for Health Promotion was used as a guideline.

#### Results

A total of 1056 people [803 employees (76%) and 253 non-employees (24%)] participated in the hospital healthy weight loss competition. A total of 2688.6 kg of weight was lost, with an average of 2.55 kg per person. In total, 618 people with a BMI of  $\geq$ 24 kg/m2 participated in the activities and lost 1838.5 kg in total (64% of the total lost weight); 105 of 618 people with BMI  $\geq$  24 kg/m2 (17%) obtained a healthy BMI (<24).

#### Conclusions

The healthy weight loss competition improved awareness regarding healthy weight loss among the 1056 people who participated in the competition of which 76% were hospital employees. Staff whose BMI was ≥24 kg/m2 (n = 409) represented 47% of the overweight hospital employees (n = 864). Fifty-nine percent of the participants initially had BMI of ≥24 kg/m2; of these, 105 achieved ideal body weight. In summary, effective and healthy weight loss was achieved and activities targeting overweight groups were also effective.

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# An experience of employee health promotion in hospital

#### **KUO Su-E**

#### Introduction

Employees are important property of a company, healthy people makes healthy workplace. Overweight, hyperlipidemia, and abnormal waist circumference are common for adults in Taiwan. According to government's survey, the prevalence of overweight and obesity are increasing in both female and male adults. Obesity is a key factor that causes metabolic syndrome. To promote employee's welfare, an organization is responsible for building up a friendly and positive atmosphere, and motivating employees to choose a healthier lifestyle.

#### Purpose/Methods

The purpose of health promotion in NCKUH is to encourage employees to reduce extra weight and modify life style to live healthier. The committee reached an agreement after meeting, and a variety of activities were held to encourage coworkers to live a healthy lifestyle and reduce extra body weight, including low caloric lunch boxes, sports games, competition for swimming, table tennis, badminton, and dodge ball. Besides, the committee opened a website providing the information of how to choose healthy foods and act more, and encouraged everyone to log in his/her own body height, weight, waist circumference monthly. The hospital offered incentive rewards for those who successfully reduce weights and the winners of each game.

#### Results

All of activities were performed during March 2012 to December 2013. Body height, weight, and waist were logged in monthly from April 2013 to September 2013. Over 1500 employees had logged in his/her anthropometric data, of which 864 people (56%) reduced their weight, totally reduced 1922.4 kg. Some of them still keep the habit of exercise and eat lower caloric meals. The number of employee who chooses low calorie meals is increasing.

#### **Conclusions**

All these efforts and activities were to construct a beneficial environment to live more actively, eat healthier, and think more positively. The tangible results are that people's life style are changed, weights are reduced, people eat healthier, and live more actively. Furthermore, the latent effects may be immeasurable, that is the sense of belonging.

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# The Effect of Weight Control Program in Health Promoting Hospital in Southern Taiwan

### LEE Chia-Sung, CHEN Mei-Cheng, YU Chia-Lun, LIN Ming-Nan, SIE Ning-Huei

#### Introduction

Worksite health promotion is very important in modern society because of the change of life style, especial for health workers in hospital. Because of highly stressful working environment, which will cause unhealthy eating behavioral, lack of physical activities, obesity is one of the critical health issues in the hospital. However, as healthcare works in hospitals, we not only provide treatment to patients but also assist our staffs to have healthier work environment. There are many worksite health promotion intervention options including weight control, physical fitness, healthy diet, tobacco control, health screening, stress coping and health communication etc. to improve the job-performance and physical function.

#### Purpose/Methods

We will present our study from Weight Control Program of one health promoting hospital in southern Taiwan in 2011 and 2012. There are 391 staffs with BMI >24 participated the program. We compared staffs who didn't participant in the program but who reported to have voluntary exercise behavior. The interventions included physical fitness, healthy diet, health screening, exercise walking and sports club etc. We examine the effect of the multimodalities intervention of weight control program.

#### Results

All staffs who participate in weight control program lose their weights, and according to different categories of employment, the nurse has best performance in weight loss (2.59 Kg in average) and administrators' only loss 1.80kg. However, for control group who lost weight in 2011 regain their weight in 2011, and especially for the physicians (3.36 Kg in average).

#### Conclusions

As the result, nurses have better performance of weight control compared with physicians. The main reported reason is lack of time. Weight control program intervention is necessary for staffs compared with the voluntary exercise.

#### Comments

In terms of many study shows that staffs in hospital who are unable to exercise and without exercise habit, the main reason is because the daily working-hour is long, the off-hour is not enough and no exercise support environment. How to promote worksite health promotion program, and have the policy and environmental support from leadership in hospital is important.

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# **Body Weight Reduction Program of Hospital Employees**



### LIN Shih-Chieh, TSAO Yu-Chung, CHEN Jau-Yuan

#### Introduction

Obesity is well-known for its correlation with high risk of diabetes and cardiovascular disease. Previous studies have shown a higher prevalence of obesity in hospital employees. In our hospital, we also have a higher prevalence of obesity than common people in Taiwan. Since the prevalence of obesity continues to increase, there is a demand for effective and safe weight-reduction program that can produce and maintain weight loss. Therefore, we design a 8-week weight-loss program for overweight and obese hospital employees.

#### Purpose/Methods

The purpose of this study aims to understand the body composition change of the overweight (BMI 24–27 kg/m2) and obese (BMI ≥ 27 kg/m2) hospital employees of both genders after 2 days a week's aerobic exercise and once a week's nutrition programs which altogether lasts for 8 weeks. (From September 1, 2013, to October 31, 2013). A total of 25 hospital employees were included. Main Outcome Measures. Change in BMI, body composition, physical fitness, waist circumference, blood pressure.

#### Results

8 male (32%) and 17 female (68%) subjects were included and completed the intervention. After 2 months of weight loss program, all the participants gain a total 90.6 kg of weight reduction among 25 people. Participants had a 3.6kg mean reduction in weight( -3.62±0.93kg, P<0.005). There were also decreases in BMI(-1.32±0.38 kg/m2; P<0.05) and waist circumference ( -4.46±1.88cm P<0.01) and an increase in Physical fitness.

#### Conclusions

The method of aerobic exercise twice a week and dietary intervention lasts 8 weeks can effectively reduce Body weight, BMI and waist circumference. It can also improve the Physical fitness, too. To become a health promoting hospital, we recommend that hospital employees do exercise on a regular basis, maintain a healthy diet and ideal body weight, especially for men, to reduce the risk and progression of age-related chronic diseases such as diabetes and heart disease.

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Workplace Health Promotion

Program for Wan Fang Hospital-Pedometer Project

HUANG Hui-Chun, HSU Yi-Nei, YEH Ching-I, KAO Ching-Chiu

#### Introduction

A multi-program has been designed to increase staff's awareness of healthy issues for Wan Fang Hospital. To benefit both mental and physical aspects, the project focuses on brain, body, hands and legs to combine fun and continuous activities in order to create a healthier workplace.

#### Purpose/Methods

The four activities include a. the brain work, "The Q & A Contest of the Safety and Healthy Workplace"; b. the body exercise, "The Test of Target Physical Fitness"; c. the hand creation, "The New Look of the Stairs", d. the legs exercise, "Pedometer project". The staff can create a healthier workplace atmosphere through the step by step projects.

#### Results

328 staff joined the pedometer project, the participation was 19.0% and satisfaction was 84.2%. 30.1% staff were most satisfied with the prize, 17.9% were satisfied with the raising of the prize. 59.4% staff dissatisfied with the quality of pedometer and 18.1% with the activity flow. And 66.2% staff raised their exercise frequency. After pedometer project, there were 64.7% staff continued activities.

#### Conclusions

The pedometer project has successfully developed staff exercise habits. Exercise habits are formed gradually once the atmosphere exists and the exercise environment is created. Improvements for the program are as followed: using proper quality tools, extending the project period and encouraging staff to join the outdoor activity in groups. The purpose is to keep the walking habits and to increase the exercise atmosphere, so a healthy workplace is achieved.

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Investigation and analysis of physical fitness status among the nursing staff –case study in a regional teaching hospital in Taoyuan, Taiwan

#### LAI Chien-Hsiao, LAI Pei-Wen

#### Introduction

Nurses are the most important labor force and make up majority of the empolyees in hospitals. Their health status can significantly affact the quality of healthcare and patient safety in the hospital. Nursing staff shortage is a common problem in many hospitals. Nurses are facing increased workload as the consequence of staff shortage. The status of their cardiorespiratory endurance and physical fitness should not be overlooked in addition to emphaszing physical health for nurses.

#### Purpose/Methods

Data was collected from the annual survey on physical fitness for employees in the hospital in 2012. The information of 370 nurses was included for analysis. Data from 562 females administrative staff working in other medical units of the same hospital was analyzed and compared by using the descriptive statistics.

#### Results

The nurses were younger than the administrative staff with a mean age of 31.7 years verse 33.9 years. They generally had a better physical fitness status than the administrative staff, inclding a mean values of BMI, higher levels of hand grip strength and leg strength, as well as the sense of balance. In contrast, the results of cardiorespiratory endurance in three-minute step test (53.05 vs. 55.9) and one-minute sit-ups (22.3 vs. 23.58) were poorer than administrative staff.

#### Conclusions

Obesity and associated diseases were less prevalent among the nurses, which may be related with the nature of their nursing work. Heavy workload associated physical activity can also enhance the strength of their extremities. However, the results indicated that they had significantly poorer performance in cardiovascular endurance tests than administrative staff, suggesting that these nurses were likely lack of regular exercise habits due to working status or irregular shifts.

#### Comments

Although the nurses included in the present study were younger than administrative staff; however, they had significantly lower cardiorespiratory endurance. The potential causes may be associated with fatigue related to heavy workload, irregular shifts, and no regular exercise habit. It is therefore suggested that welfare interventions on promoting regular exercise habits should be introduced by applying administrative policies or incentives to maintain optimal health status for these nurses.

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# Life transitions and changing physical activity patterns in Hospital staffs

### WU Hsueh-Ling, HUANG Hui-Lan, TSAI Yu-Chun

#### Introduction

Worksite wellness programs are important interventions to protect and promote employee health. Especially, worksite wellness programs have developed largely in response to cost-containment efforts combined with the worksite health promotion movement. According to St. Joseph's Hospital 102 annual working to promote the project, in worksite wellness project efforts target is reversible or alterable behaviors such as

smoking, weight management, blood pressure monitoring, and stress management.

#### Purpose/Methods

St. Joseph's Hospital, 102 through annual work programs combination of employee satisfaction, from the result to make sure health promotion goals of employee health management, a smoke-free environment and weight loss program. Collection and access to health promotion resources and health needs of employee satisfaction, we had six rules to achieve worksite wellness programs.

#### Results

This Tool introduces key concepts and strategic tips for planning workplace-based wellness programs rather than individual health promotion events, while emphasizing organizational change and implementing effective initiative worksite wellness programs.

#### Conclusions

In general, wellness programs result in improved levels of physical activity and has found relations between reduction in BMI indicator, an average of one kilogram of weight loss per person and implementation of comprehensive health promotion. Issues related to exercise prescription, program implementation, and evaluation are also addressed.

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### Healthcare Workers Climbing for Health

### WU Wendy Jie-Ying, LIOU Nai-Syuan, HSIEH Hui-Ting, LEE Wan-Chen, CHEN Cheng-Yu

#### Introduction

Healthcare workers are first-line health advocators, yet often neglect their own health status. Physical inactivity has been linked to many chronic diseases and is one of the most common preventable cause of death in developed countries. The American Heart Association recommends that individuals do moderate exercise for at least 150 minutes per week. Stair climbing is regarded as one of the simplest method to lose weight and enhance physical activity.

#### **Purpose/Methods**

On the 8th Taipei Tzu-Chi Hospital Anniversary celebration, a stair climbing competition was designed for healthcare workers. Hospital staff were encouraged to take the challenge of climbing 17 flights of stairs. Encouraging slogans are found along the staircases. Each participants were timed and grouped according to gender. Prizes were awarded to the fastest ten contestants.

#### Results



A total of 137 healthcare workers participated, 31 men (22%) and 106 women (78%). Of the male group, the time to climb up seventeen flights of stairs ranged from 2 minutes and 8 seconds to 6 minutes and 19 seconds. Of the female group, the time climbed up ranged from 2 minutes and 50 seconds to 14 minutes and 44 seconds. All participating healthcare workers showed high satisfaction for this health promoting event.

#### Conclusions

The busy schedule of most healthcare workers lead to sedentary lifestyles. Climbing stairs has been proven in many studies to improve cardiovascular function and physical fitness. It is the cheapest, most accessible, and effective form of aerobic exercise to burn calories, build muscle tone and strengthen balance. Through this competition, we hope to increase healthcare workers' motivation for better health. We hope this competition and the variable kinds of slogans can become the starting points of long-term health concept cognitional change and health behavior motivation.

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Follow-up study of a medical center employee health-related fitness in 2011 to 2013

## HSU Yi-Nei, HUANG Hui-Jun, YEH Ching-I, CHEN Chin-Hua, SHIEH Ying-Hua

#### Introduction

Obesity and overweight developed the primary factor of modern civilization disease, according to Department of Health statistics, in 2012 the main cause of death statistics in Taiwan's population, heart and cerebrovascular diseases ranked second and third, respectively, the total number of deaths were 28,182, accounting for 18.3% of total deaths. In order to understand the health of employees in a medical center in Taipei physical state, followed up and analyzed the hospital "employee fitness test" data in 2011 to 2013.

#### Purpose/Methods

According to the Department of Health Bureau of Health recommended physical fitness assessment methods, the distinction between physical fitness following four elements: First, the body mass index (BMI); Second, sit and reach (Flexibility); third, sit and ups in one minute (Muscular endurance); four, three minute step test (Cardiovascular endurance), for the physical fitness test items. We divided worker type into four categories. The application of basic statistics and Excel to SPSS software for statistical analysis of test significantly.

#### Results

Gender-neutral observed 78 people in 2011-2013. Further elements of the physical fitness program for Pearson correlation

analysis, subjects who show 2011-2013 flexibility, cardiovascular endurance, muscular endurance and body mass index was significant correlation (P <0.01)which will influence the level of cardiorespiratory endurance flexibility, obesity, muscular endurance performance test items which will influence the level of cardiorespiratory endurance flexibility, obesity, muscular endurance performance test items. Work type, flexibility and muscular endurance was significant correlation (P <0.05).

#### Conclusions

The subjects of healthcare workers are still the majority of women and all of the above Working Experiences 3 years. A questionnaire survey of 78 workers resulted that half of workers had exercise habits, continued for more than once every week was 34 workers, each exercise for 30 minutes or more was 26 workers. The resulted show that physical fitness is to be enhanced. We can organize nutrition counseling, weight control programs, walking to encourage worker to participate in.

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Using Theory of Planned Behaviour to explore factors of influential the intention of physical activity behaviour for employees in Marshallese Hospital

### CHEN Ying-Ru, LIN Shoei-Loong, CHIANG Min-Hsuan, HOU Ying-Hui, CHANG Ray-E

#### Introduction

To explore the potential variables and predict intention of hospital staff from the Republic of the Marshall Islands to exercise during leisure time.

#### Purpose/Methods

Based on Azjen's The Theory of Planned Behaviour published in 1985. The target population for this study includes employees from two Marshall Islands hospitals. From a total of 300 surveys, 278 surveys were returned. The average age of the participant was 41 years. From the data collected, a preliminary factor analysis method was established, followed by validation and analysis of descriptive statistics, confirmatory analysis, and structural equation modelling for data processing.

#### Results

1. Attitudes, Subjective norms, and perceived behavioural controls for Marshall Islands hospital employees' exercise all attained a significant correlation with regular exercise's intention. While attitudes, subjective norms, and behavioural controls all had the ability to predict exercise intentions. 2. Behavioural result beliefs had the positive correlation with behavioural attitudes. 3.

Normative beliefs, compliance motives, had positive correlation with subjective norms. 4. Perceived ability had positive correlation with perceived behavioural controls. But belief controls had no correlation toward perceived behavioural controls.

#### **Conclusions**

Attitudes, Subjective norms, and perceived behavioural controls for hospital employees' exercise intentions were explained with a variance of 43.6%, perceived behavioural controls .57(P=<.05), subjective norms.24, (P=<.05), and attitudes.12,(P=<.05), these variables all show a significant correlation with regular exercise's intention. The Marshall Islands MOH and hospitals should promote the behavioural controls ability of employees, accept the suggestion of significantly others, exclusion discourage factors, enhance self-confidence and proper cognitive attitude of regular exercise.

#### Comments

The MOH and hospitals of the RMI should provide a variety of physical activities, raise the quality and accessibility of exercise facilities, hire professional trainers, and encourage employees to invite families and friends to increase exercise, and strengthen employees to recognize the benefits of exercise. Therefore it's clear that increased physical exercise could achieve the reduction of negative impact such as disability and high medical expense caused by diabetes and other chronic diseases which primarily because of overweight and obesity.

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# Session P2.12: Responding to work-related pressure and stress

Health Care Staff Psychological Support to promote wellbeing at work

#### **TOVOLI Daniele, MAZZA Concetta**

#### Introduction

Healthcare workers in Italy show an increase in uneasiness, discomfort, poor well being at work due above all to continue reorganization, spending review, work commitment, change in the profession, and can lead to poor quality in healthcare services, absenteeism, poor motivation, and can be cause of adverse events for patients. With this awareness Bologna Health Local Unit set up a project to institute a professionals group supporting workers in this pathological aspect of working life.

### Purpose/Methods

The project started in October 2011 recruiting on voluntary base 23 clinical psychologists in the Local Health Unit. We made interviewes with any professional to evaluate attitude and motivational aspect, singular aspect was that at the end of our selection remain only ten professional. After that we began an intensive training on occupational and organizational psychology, and other two professionals leave the group during the courses.

#### Results

The Group trained began the activity in May 2012 during an emergency period due to the earthquake that strike Emilia Romagna Region, supporting healthcare workers to recover their work activities after traumatic stress. The request on intervention can be made by the Head of the Unit that observe suffering o uneasiness at work in his staff. It's not possible for the single professional made a request, this to increase the accountability of the directors. The psychologists involved in this project works part time respect their clinical activity. The group with the Coordinator study the case, choose the psychologist to follow it, and contact the Unit to began the counseling with people involved, that does not last more than 4-5 meetings.

#### Conclusions

In 2013 the Group get 14 requests and actually 6 are waiting for action. Of the 14 requests 6 concern serious adverse events with patients (3 died), 4 concern professional conflict, 4 concern organizational aspect of work, and involved approximately 120 healthcare workers in the year. In each case is compiled a report with proposals of solutions. Health care workers gave an excellent evaluation of the action. Due the good results we are planning to extend the project recruiting more professionals.

#### Comments

the goal is not to put professionals on the psychologist's couch, but give them real support and foster during difficulties

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# The approach to the improvement of mental health at our hospital

## SHINOZUKA Masaya, KAWAMATA Youko, YOKOKAWA Megumi

#### Introduction

Any medical institutions have many factors such as irregular work shift, emotional labor, and hierarchy within the institution that could cause mental illness. Also, handling Human Resource Management according to occupation makes it more difficult to take efficient countermeasures for mental health problems. Not only the early detection (Individual Second Prevention) but also creating a healthy working environment (Systematic Primary Prevention) and promoting self-care (Individual Primary



Prevention) are important to reduce the number of people who suffer from mental illness.

#### Purpose/Methods

We have set up "Mental Health Promotion Committee". The industrial health staffs and management supervisors were appointed to this committee, and held 30-minutes meetings every month. With a declaration of mental health improvement by the top management, we began to hold seminars on promoting self-care for all staff members, and also seminars of care by management supervisors and workshop for creating healthy work environment using the result of Mental Health Improvement and Reinforcement Research of Recognition (MIRROR) for supervisors.

#### Results

We held a total of 20 self-care seminars with participation rate of 23.5%. For workshop, there were 13 out of 37 departments (19 participants) that had attended. The supervisors and managers were informed that they are the key persons at workplace and there were concerns raised by other staffs members such as unavailability of their supervisors to approach with problems, lack of opportunities to attend seminars, and poor communication. The participants created an action plan for the workplace improvement.

#### **Conclusions**

A special strategy is necessary for everyone in each department to be conscious about countermeasures for mental health problems. In order to this non-urgent, yet high priority subject to be steadily put into action, the determination of upper management and strategies are important. Creating a healthy work environment and developing human resources are essential for not only the improvement of mental health but also increasing the productivity of workplace and becoming the organization that can learn and grow.

#### Comments

Ministry of Health, Labour and Welfare recommends promoting good mental health as follows: (1) self-care, (2) care by management supervisors, (3) care by industrial health staff of workplaces, and (4) care by resources outside workplaces. MIRROR is a questionnaire that was developed by University of Occupational and Environmental Health Institute of Industrial Ecological Sciences Department of Mental Health. It classifies into 45 desirable states of workplace and promotes grasping the needs for improvement and setting appropriate goals and actions.

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# The effects of meditation on the mental health of nurses

### CHEN Chin-Chin, JEANG Shiow-Rong, LI He-Jhen, WANG Pei-Hern, TING Hsiu-Jung, KU Yan-Chiou

#### Introduction

Nurses work with a great emotional stress, and their mental health is poor. Meditation would promote their mental health.

#### Purpose/Methods

This study was designed to approach the effects of meditation on the mental health of nursing staff in a South Area Medical Center. A one-group, pre-test and post-test quasi-experimental design was adopted. 51 nurses participated in the meditation group. Meditation activities and group discussion were led by a psychologist. The duration of each session was one hour. VAS emotional scale was used to evaluate the effects on the mental health status of nursing staffs before and after the intervention.

#### Results

Chisquare and paired t test were used to analyze the result. The average scores of nurses positive emotions elevated 0.8 points after the meditation activity. Three positive emotion including relaxation, pleasure and happiness scores were significantly different in our result.

#### Conclusions

Meditation activity could improve nurses' positive mood, and promote their mental health.

#### **Comments**

Clinical nurses could participate in meditation activities to gain positive emotions and promote mental health.

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### A Web-based Questionnaire to Evaluate the Psychological Conditions of Healthcare Workers in a Medical Center in Taiwan

### CHEN Kuan-Yu, YANG Yi-Ching, WU Chen-Long

#### Introduction

Healthcare workers are subjects to stresses such as being responsible for the care of critical conditions of patients, assaulting by a patient, or over-time work in Taiwan. In order to explore the risk group of the healthcare workers in the hospital, we conducted a web-based survey to evaluate the psychological conditions.

#### Purpose/Methods

This web-based questionnaire, offered on the intranet of the hospital during Apr to Sep 2013, is consisted of three axes: work-related burnout, psychiatric morbidity, and suicide risk. The burnout scale was adopted from the Copenhagen Burnout Inventory. The brief symptoms rating scale (BSRS-5) was used to evaluate the psychiatric morbidity. The result of individual evaluation was feedback immediately on the web according to their norms. The high risk groups were compared by sex, age, and working years in different occupations.

#### Results

There are total 2,759 questionnaire (68.2%) collected during the study period. The percentages of severe degree of burnout and psychiatric morbidity are 18.0 and 5.1, respectively. The moderate to severe suicide risk is 5.3%. The occupation "nurse" shows significantly high risk in burnout and psychiatric morbidity axes than "physician", "other paramedics" and "administrative workers". In the "nurse" occupation, the working year longer than one year shows significantly high risk in burnout scales than less than one year.

#### Conclusions

In the present study, we conducted a web-based survey for the psychological conditions of healthcare workers in a medical center in Taiwan. The results show the nursing staff has higher burnout scale and psychiatric morbidity, especially for the group worked for more than one year. Further intervention should be focused on this group.

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# A Survey of Workplace Fatigue at a Hospital in Taiwan

#### CHEN Wen Chun, LIU Tz Jie, WU Wei Han

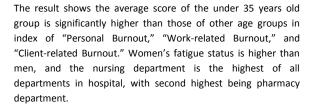
#### Introduction

A hospital is a high-pressure workplace. In addition to treating various acute and chronic diseases on a daily basis, healthcare workers are exposed to a variety of moods and demands from patients' families. They are also asked to have patience and maintain a cheerful attitude as they work. Therefore, we seek to identify the degree of workplace fatigue and ways for improvement.

#### **Purpose/Methods**

The subjects of this study are employees of a regional teaching hospital, a grand total of 967 men. Our research tool is the "Subjective Fatigue Symptoms," compiled by the Institute of Occupational Safety and Health (IOSH), including index of "Personal Burnout," "Work-related Burnout," and "Client-related Burnout."

#### Results



#### Conclusions

Through the survey of employee fatigue, the hospital administrators can better understand the staff's work pressure, workload, and fatigue status and organize a team to plan a comprehensive improvement program to reduce overwork and increase the health of their bodies, mind, and spirit.

#### Comments

1.When the hospital started to do "Occupational Health Promotion," we found the staff were rarely concerned about the impact to their own health due to workload or shift work. Even though medical treatment was highly accessible to them. 2.The greatest importance of doing "Occupational Health Promotion" is the attention by the management hierarchy, and its pragmatic implementation through the whole organization, from top to bottom. This can intensify organizational effectiveness, and result in a friendly workplace for employees. The organization has to strengthen each employee's cognition of how to live for a healthy life. In other words, it can not only depend on workers themselves to manage their own health. The organization can promote employees' health and increase their working performance.

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# Applying small group counseling to reduce pressure of hospital medical personnel

## CHIN-LIEN Lai, CHIN-MING Liu, LI-KUANG Tan, HUI-YING Lin

#### Introduction

Workplace Health Promotion - We want to promote health for the workplace employee of hospital and to shape friendly workplace culture.

#### Purpose/Methods

First, we establish employee counseling center in hospital and cooperate with psychiatrist and psychologist to lead group meeting. to Second, we build up the SOPs and provide immediate counseling and caring. Third, We set up one direct contact station with slogan "We are families, we care all employee." Finally, for privacy consideration, we contact with high stress employee via e-mail or individual electronic bulletin board, and invite them to joint the group counseling, to share



their experiences, and to learn how to reduce stress and restore energy under their inform consent.

#### Results

105 employee joint the "Burnout group counseling" in 6 sessions within 2 months since Sep. to Oct. 2013. They are measured by Pressure Index Scale(PIS) before group meeting and post-test after meeting one month later. The mean score of PIS pre-test is 6.28 and that of PIS post-test is 3.98.

#### Conclusions

Sharing feelings and support to each other in group counseling setting indeed help employee to lowing they job and emotional stress. The Pressure index Scale can be use to evaluate their stressful condition and monitor their mood status post group intervention.

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Who is suffered from high job stress? A comparison of the level of burnout among different medical professionals in hospital

## CHOU Li-Ping, LO Mu-Yin, LI Cheng-Yi, HU Susan

#### Introduction

Hospital staffs often work in a highly stressful environment. High burnout will cause medical professionals to have physical and emotional illness and will also affect their quality of care. Although Taiwan's nurse have described they are stuck in hell because of bad working environment, no available reports have disclosed the level of burnout across other medical professions in hospital. We conducted a hospital-based survey to explore the prevalence and attributing factors of burnout among different medical professions.

#### Purpose/Methods

A total 1,329 participants who complete the electronic questionnaire were recruited, with a response rate of 89%. These voluntary participants included 101 physicians, 68 physician assistants, 570 nurses, 216 medical technicians and 374 administrative staff. Demographic data included gender, age, level of education, marital status, and work situations such as position, work hours, work shifts were recorded. Two validated questionnaires, the Chinese version of the Copenhagen Burnout Inventory and the Job Content Questionnaire, were used in this study.

#### Results

Burnout was higher for females, younger individuals, as well as in those who do shift work, work overtime, perceive active or high job strain, and in those who frequently over-commit or receive low social support. Hierarchical regression analysis indicated that job strain, over-commitment and social support explained the most variance (32.6%) of burnout. The prevalence of high work-related burnout from highest to lowest was nurses (66%), physician assistants (61.8%), doctors (38.6%), administrative staff (36.1%) and medical technicians (31.9%), respectively.

#### Conclusions

Physician assistants is an emerging high risk group of burnout, their severity are similar to nurses and far more than doctors, administrative staff and medical technicians. These findings may contribute to the development of feasible strategies and make the priority to reduce the stress which results in the burnout currently plaguing most hospitals in Taiwan.

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Evaluation of the Correlations Among Emotional Labor, Emotion Management and Customer-Oriented Behavior for Emergency Medical Team Members

#### **HSIAO Su-Chiu**

#### Introduction

Purpose The aim of this study is to investigate the correlations among emotional labor, emotional management, and customeroriented behavior for emergency medical team members and to examine if emotional management affects emotional labor and customer oriented behavior and its moderating effect.

#### Purpose/Methods

Methods A total of 250 questionnaires were sent out to the emergency medical team members in a medical center in Southern Taiwan, with 196 responses recieved. Data were analyzed by t-test, oneway ANOVA, Scheffe's (post hoc) test and Pearson's Product-Moment Correlation.

#### Results

Results A. Emergency members of different job functions showed difference in variables like emotional labor, emotional management and customer-oriented behavior. B. There is a positive correlation between emotional labor and customer-oriented behavior. C.Emotional labor is a significant predictor for customer-oriented behavior. D. Among composites of emotional management, empathy as well as emotional awareness and expression have mediating effect on emotional labor.

#### Conclusions

Based on the results of the study, here are suggestions: A. For hospital authority: 1. Develop and provide educational training

employees' emotional labor. 2. Improve work procedures and content to reduce employees' emotional labor. 3. Recognize that effective teamwork and communication are critical for effectively reducing employees' emotional exhaustion. 4.

Manage strategic plans for human resources to ensure sufficient resources are available. 5. Empower team members to participate in decision-making. B. For emergency team members: 1. Increase cognitive awareness of emotional labor and improve emotional management skills. 2. Actively participate in educational training programs and enhance emotion regulation. 3. Set up career development plans. C For future studies 1. Modify and Re-evaluate the measurement scales used in the study for further validation. 2.

Expand the sample size to include all emergency crews in Taiwan. 3. Assess interaction quality from the customer's perspective. 4. Add more relevant variables to the research design. 5. Investigate mediating factors affecting emotional labor.

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Improvement by Educational
Psychology-Supported Groups on
Work Pressures and Depression in Hitech Plant Employees

## HUANG Hsin-Shu, WENG Wan-Ling, HSU Shan-Yu, HU Ling-Chu

#### Introduction

This study investigated, by experiment research, the effect of improvement by educational psychology-supported groups on the work pressures and depression in hi-tech plant employees.

#### Purpose/Methods

Subjects were 64 employees at a hi-tech electronics firm in a science part, who agreed to participate in the research and were numbered and randomly assigned, by computer software, to an experiment group and a control group, each of 32. The members of the experiment group participated a weekly 90-minute educational psychology-supported group for eight weeks, whereas the control group was not intervened by any group. Quantitative data of the findings were analyzed with SPSS 20.0 and qualitative data processed with content analysis.

#### Results

Our findings indicated that (1) in the research subjects, the average work pressure reached a medium level, and depression a light level, and a positive relation between the two; (2) the employees of the experiment group had significantly lower work pressure and depression than they had had before the intervention by educational psychology-supported group, and the hi-tech plant employees who participated educational

psychology-supported groups had significantly lower work pressure and depression than those did not participate. Our study empirically demonstrated that educational psychology-supported groups had significant effect of improvement on both work pressure and depression in hi-tech plant employees; and (3) the drive of educational psychology-supported groups generated eight therapeutic factors: information communication, catharsis, inter-personal learning, universality, group cohesion, altruism, development of social skills and existence.

#### Conclusions

The Educational Psychology-Supported Groups assisted employees at hi-tech plant in creating positive thinking and faith to alleviate their work pressure and depression.

#### Comments

Develop The Educational Psychology-Supported Groups To Relieve Hi-tech Plant Employees' Work Pressures and Depression

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# The effect of health promotion presentation on health-promoting in Nurses

### KU Yan-Chiou, HO Shiou-Shyan, JEANG Shiow-Rong, HSU Kuei-Ling, LIN Chien-Chiu

#### Introduction

Introduction: Health Promotion is an important health care policy worldwide. Nursing staff is the majority of medical service team. Facing complicated and high-pressured working environment, it is easily to cause fatigue at workplace, influences health conditions, and further endangers the quality of medical care. Therefore a health promotion hospital is the goal of every health care institution. It is an important issue to arrange all kinds of health promotion presentation activities.

#### Purpose/Methods

Purpose:To relieve the nervous status, express working pressure and ease depressed mood via holding a health promotion presentation competition. Method:The Nursing Department started to conduct several health promotion activities, such as speech lecture, outdoor hiking, singing contests. Each ward assigns health promotion ambassadors to conduct several health promotion activities, such as dinner gathering, picnicking, and aerobic exercises according to the needs. Then we collect all the information about health promotion activities and exam the written materials. We selected 10 wards into our health promotion presentation competition and gave award money as encouragement. We investigate the outcome by requesting the presenter of health promotion presentation to complete the questionnaire (1-5 points scoring scale), in order to observe the outcome of relieving nervous mood and working pressure.



#### Results

Results: 278 members were participated and complete 278 questionnaires. The overall satisfaction is 88% (scoring scales over 4 points). Awareness of relieve nervous status is 80%. Working pressure expressed is 80%. Lowering mood depression is 82%. The necessity of arranging similar events is 80%.

#### Conclusions

Conclusion: Health promotion presentation can relieve nervous mood, working pressure, and depressed mood.

#### Comments

Comments: We suggest the medical institution should emphasis and continue to conduct relevant activities to advance the health of nursing staff.

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# Recommendation of improvement in mental health for Nursing Staff

## LIN Mei-Na, KU Yan-Chiou, JEANG Shiow-Rong

#### Introduction

The frustration of nursing staff will cause poor emotion management. Hospital administrative system should help nursing staff to increase job satisfaction by providing assistance in adaptation to working pressure and searching for resources to facilitate facing and accepting the realities. It is important to improve mental health and lower frustration level by encouraging nursing staff to participate in outdoor recreational activities.

#### Purpose/Methods

Purpose: To relieve nervousness and tension at work by holding outdoor hiking activity and encouraging participation of all nursing staff. Outdoor hiking activities will be held twice to allow nursing staff working in different time to join with their family. All participants will be grouped by their supervisor and questionnaires in five-point scale will be delivered for research.

#### Results

There are 495 participants with 397 returned questionnaires, which means 80.20% effective return rate. Overall satisfactory rating is 95.49%. By participating these activities, 93.22% participants thought it's helpful in relieving nervousness and 92.48% participants agreed its help in relieving tension at work. The rate of helpful in reducing depressions was 92.18%. 92.92% participants felt the necessity of holding these activities again.

#### Conclusions

It is helpful for nursing staff to relieve nervousness, reduce depressions and tension at work by joining this kind of outdoor hiking activities.

#### Comments

Healthy outdoor recreational activities can help to relieve nervousness and tensions at work. They are also helpful to reduce depression as well. We recommend that medical institutions should emphasize the importance of these outdoor activities and keep on holding such activities to improve mental health of its nursing staff.

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# Strategy of Health Promotion in Workplace – Stress reducing model

### LIN Shu-Ji, SIAO Rxo-Yan, JOU Hei-Jen, JIAN Pei-Li, CHEN Shih-Ming, CHUO Ying-Hsiang

#### Introduction

Workplace health promotion in healthcare organizations has been emphasized over the recent years. However, most hospitals design the projects as lectures and exercise activities, which are not well implemented because of diversity of working time among hospital workers. By adding a feasible program, we designed a health promotion project with personal diet tutorial provided by dieticians before and after each meal, hoping to enhance self-efficacy of dietary management for hospital workers.

#### Purpose/Methods

The purpose of this program is to enhance the capability of proper food selection and self-efficacy of diet management among hospital employees with high risks for metabolic syndrome. We recruited workers with high BMI - greater than 27, and more than 3 abnormal indices of metabolic syndrome. 20 employees were recruited including 2 physicians, 8 nurses, 5 medical technicians and 5 administrative staff. The intervention includes 2 lectures of diet management and daily personal tutorial for proper food selection.

#### Results

After 30 days of intervention we evaluated the effectiveness on weight, waist circumference, body fat and BMI, and the result showed significant improvement in all indices. Three months after the program, all physical indices plus serum triglyceride and total cholesterol were improved. In conscious awareness, 85% of workers in intervention group believed that their personal diet concept and self-diet management had been improved. Evaluation of capabilities of food selection and substitution of food also showed significant improvement.

#### Conclusions

Enhancing self-efficacy of dietary management for hospital employees is one of the most important issues of workplace health promotion in the hospitals. This meticulously designed program was demonstrated to be practical and effective to guide hospital employees for healthy weight control by proper eating. It also implies that enhancing self-efficacy of dietary management should be considered as the most important step in workplace health promotion.

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"Happy Garden" Self-Growth Groups

– Employees Caring Program for
Nurses

## PENG Jung-En, WU Ya-Li, CHAN Hsin-Lung, HUANG Yi-Pai, YAO Pei-Hua

#### Introduction

Working pressure is often the cause nurses to leave, how to effectively relieve their stress is the need to work on the hospital issue. The purpose of this program is to enable nurses to have better mental health to serve patients. Through small group interaction in a comfort coffee shop, we provide opportunities for nurses learning how to take care themselves. By this program, they increase the self-awareness of inner pressure and the abilities of self-care

#### Purpose/Methods

The purpose of this program is to enable nurses to take care themselves and to have better stress adaptation and metal health for service and themselves also. With the guidance of psychological counselors, small-group interactions are provided for participants. The issues chosen for the self-growth group are about self-awareness and how to dealing with working stress.

#### Results

Over 80% participants said that this program effectively relieve their stress. Participants said that they know themselves better, and understand more about the relationship between the pressure and the inner-self.

#### Conclusions

By the way of small groups and carried out in a safe environment, participants were more able to recognize and confront themselves to have a better ability to withstand pressure, also reduces the idea of resignation.

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# A study on job stress awareness and satisfaction of employee in a hospital

### SHEN Chin-Mei, TSAI Chiung-YI, LU Li-Chin, WANG Jun-Yu

#### Introduction

Wellness is defined as "a composite of physical, emotional, spiritual, intellectual, occupational, and social health; health promotion is the means to achieve wellness." Medical institutions are highly professional and highly labor organization, in addition, to shoulder the responsibilities of public health, it has become a high-pressure working environment. To understand the current situation of hospital staff to patient safety awareness, stress sources, and have the approach to their relationships with staff's basic attributes.

#### Purpose/Methods

A cross-sectional design was adopted and questionnaires containing patient safety and satisfaction items were used to collect information from the staff of a hospital in central south Taiwan. Our hospital staff as a sample of the population, and excluding new employees. Four hundred and three validated copies were returned. Statistical description, pearson correlation, hierarchical regression analysis, one-way ANOVA, t-test and Scheff'e method were used to analysis the data.

#### Results

Main finding included: (1) there were differences beween in job satisfaction and stress awareness. (2) Pressure cognitive scores have improved, it mean the hospital staff understood how to find resources to solve their problems. (3) Most of the employees were seeking counseling with physical body aspects.

#### Conclusions

Chaplaincy Department conjunction with the medical team to jointly care for patients and their families, so that patients got the total healing. Besides, Employee care, fellowship activities and various festival activities, to care for employees' work and life. Most important, all the Chaplaincy Department member all have Clinical Pastoral Education License, (CPE). Based on this research results, it's recommended that all hospital workplace should implement supported and solicitude team to upgrade healthcare quality and job satisfaction

#### **Comments**

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## The working pressure and health condition of registered nurse and nursing assistant

#### WU Yen Li, KAO Mu-Jung

#### Introduction

The Comparison of working pressure and health status between nurses and nurse aides in 5 branches of one public hospital were investing aged in this study. In the meanwhile, the difference of working pressure and health status of nurses among the branches and divisions were monitor.

#### Purpose/Methods

Through a cross-sectional survey, utilizing the" Health Assessment Questionnaire "as a research tool. Total 292 nurses and 286 care-givers (total 578) from various divisions of 5 branches in one public hospital were surveyed here.

#### Results

We found in all branches and divisions The nurses had similar extent of pressure. The same result was found among The nurse aides. The pressure scale of nurses were larger than nurse aides in all branches and divisions. The perceived health status scale of nurse was less than nurse aides. The main pressure source of nurse was from hospital accreditation. The hospital accreditation also had great impact on health status of nurses, but had no significant impact on nurse aides.

#### **Conclusions**

The nurses from different branches and divisions all undertook similar extent of pressure, and so did nurse aides. But nurses undertook more pressure than nurse aides. The hospital accreditations put lots of pressure on nurses and worsen their health. For the sake of nurses' health, we suggest the hospital should reduce the burden on nurses during hospital accreditation.

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Difference of teamwork perception among emergent nurses and physicians: an experience of a local teaching hospital in Middle Taiwan

HSU Tien-Kuei, HSIEN Tsai-Hsia, WU Chun-Hua, SHEN Yu-Hui, SHIU Hsiu-Jiuan, LU Chia-Wen, HSIEH Chia-Chi, WU Mei-Chuan, HUNG Min-Huei

#### Introduction

Teamwork among health care professionals is important for patient safety and active teamwork practice was reported to be associated with increased perceptions of autonomy and a positive work environment. Team Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS) is a systematic approach to integrate teamwork into practice. The research showed surgeons report more perceptions of communication and teamwork effectiveness than do nurses, but few reports focus on emergent departments.

#### Purpose/Methods

This study aimed to investigate the difference of teamwork perception among emergent nurses and physicians. TeamSTEPPS curriculums were introduced to emergent staff since September, 2013. TeamSTEPPS Teamwork Perceptions Questionnaire (T-TPQ) was used to evaluate the team structure, leadership, situation monitoring, mutual support, and communication and the Cronbach's alpha reliability coefficients were all at least 0.88. Package statistical software was utilized to analysis the differences among nurses and physicians after the curriculums.

#### Results

After the 3-month TeamSTEPPS education, 91.4% of emergent staff attended at less one curriculum. The participants were enrolled who completed the T-TPQ, both the pretest and posttest. The response rate was 75%. Of the 27 participants (6 physicians and 21nurses), 77.8% were female and 48.1% were 26-35 years in age. Paired-sample test revealed the leadership and situation monitor perception among nurses were significantly increased, from 3.5 to 4.0 (p=0.22) and from 3.7 to 4.2 (p=0.18) respectively.

#### Conclusions

The emergent nurses had higher increasing perception in leadership and situation monitoring after TeamSTEPPS education. There was no significant change among emergent physicians. Further study with a larger sample size is needed. The teamwork curriculums should be taught to develop hospital into an environment-friendly workplace.

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Improvement of atmosphere among emergent department staff by introduced team resource management skills: an experience of a local community teaching hospital in Middle Taiwan

#### HSU Tien-Kuei, WU Chun-Hua, HUNG Min-Huei, HSIEN Tsai-Hsia

#### Introduction

Previous studies indicated that crew resource management (CRM) skills can improve medicine team performance and mitigate human error. In Taiwan, CRM was modified and named as team resource management (TRM) by Taiwan Joint Commission on Hospital Accreditation in 2009. The content of TRM skills are leadership, situation monitoring, mutual support, and communication. However, the reports for the influence of atmosphere among healthcare staff were uncommon, especially in emergent department.

#### Purpose/Methods

This study aimed to investigate the influence of atmosphere after TRM education among emergency department staff, including physicians, nurses, and attendants. TRM curriculums were introduced during September in 2013. Then we used "Mood Flower Garden" to evaluate the atmosphere among our staff at work every day. Red flower represented happy mood, while yellow and purple flower stood for equivocal and bad mood, respectively. The percentage of red flower in the followed 8 weeks was compared by means of paired-sample-test.

#### Results

Of the 36 participants (9 physicians, 25nurses, and 2 attendants), 72.2% were female and the mean age was 30.5 years. During the month, 69.4% had attended at less one TRM curriculum. The red flower percentage in the first 4 weeks was 39.3% and the percentage was 44.4% in the next 4 weeks. Paired-sample-test showed the elevation of the happy mood rate was significant (p=0.011) among emergent department staff.

#### **Conclusions**

Emergent department staff showed the happier mood after TRM curriculums education. They could have the ability to treat patient with a happier mood and the patient might have a more comfortable hospitalization. Future studies can evaluate whether the others reasons are responsible to influence the atmosphere among emergent department staff. The TRM curriculum should be taught to develop hospital into salutogenic workplace.

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The effect of emergency violence prevention using assaults and violence behaviors assessment scale

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#### Introduction

The emergency medical personnel is of the most vulnerable to physical violence and verbal abuses, which can create adverse impacts on the hospital or individuals' physical, mental, and emotional condition.

#### Purpose/Methods

This project is primarily to enhance the assault handling ability of the emergency medical team and to reduce the occurrence of assaults. From July, 2012 to February, 2013, due to incidents of violent assaults, the total number of people seeking emergency medical assistance is 26,711 person- frequency, the total of physical violence is 18 person-frequency, and the total of verbal abuses is 84 person-frequency. Analyzing the causes and people, incidents, and the environment.

#### Results

The results from the development of the assault and violent behavior assessment scale and the patient violent behavior processing procedure show that the occurrence of the average monthly person-frequency of physical violence drops from 2.2 person- frequency to 0.75 person-frequency after intervention with the paired t value of 7.937 (P<0.1), and the average monthly person-frequency of verbal abuses drops from 10.5 person-frequency to 3.125 person-frequency after intervention with the paired t value of 8.529 (P<0.1).

#### Conclusions

The effectiveness of emergency violence prevention using assaults and violence behaviors assessment scale measures is clearly demonstrated.

#### Comments

A well-executed assault assessment and precautionary preparation by the emergency medical team can reduce potential harms to the emergency medical team and prevent assaults from happening, improving the quality of health care safety.

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Creating a secure career environment to improve the personal safety of medical staffs in the emergency department.

WANG Chin-Hsiang, YANG Teck-Jin, WANG Shu-Min, FU Mei-Chiang, CHANG Chih-Chieh, LIN Chia-Chen

#### Introduction

Emergency department is a 24 hours opened-to-public unit in hospital, which provides acute medical care to the patients in



need. Researches revealed that medical staffs in ED are highly stressed, and prone to violence incident.

#### Purpose/Methods

The satisfaction survey of medical staffs to career safety was only 63.8%. Thus, we wish to improve this situation by establish a cross-unit cooperation task. A standard operating procedure flowchart was set up and announced. We also modified the ED security support system, constructed an internet alarming system, organized a special concern unit, built up monitoring hot spots, providing care giving counseling services and compensatory subsidies for the victims. In addition, we also set up an emergency evacuate pathway

#### Results

The violence incident in ED has decreased from a total of 7 cases to 3 cases in 2013 January to December. The stratification rate of medical staffs to career safety also improved from 63.8% to 92%.

#### Conclusions

This special cross-unit cooperation task has established various facilities and system to prevent the career violence incident. Due to the excellent results, this system will be further extended to the outpatient and inpatient department, in order to create a fully secure working environment.

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## Session P2.13: Training healthcare staff for health promotion service provision

Improving the knowledge of Health Workers on the Policies of National Health Insurance Scheme in Adisadel Sub-district in Cape Coast

#### YAWSON Mercy

#### Introduction

The National Health Insurance (NHIS) Policy was introduced to replace the "Cash and Carry" system which has resulted in the decline in utilization of health service in Ghana. It is worth for health workers to know the type of health insurance policies and benefit packages practiced at the health facilities. This paper aims at assessing the level of knowledge of health workers to identify the need to sensitize them on current information to improve their knowledge on the NHIS policy

#### Purpose/Methods

Descriptive research design was used for the study. The study area was Adisadel Sub-district in Cape Coast in Central Region of Ghana. Table of Random Sampling was used to sample 30 health workers from 75 health workers for the study. Self-Administered Structured Questionnaire was the main instrument used

#### Results

Of the health workers studied, it was found that majority (94%) of them described the NHIS as a "Contributing Payment", while few (6%) of them described it as "Service at Health Care" and "Unaffordable Service". Generally, the knowledge of the health workers on the NHIS Policy was found to be adequate, but the knowledge of male health workers was found to be statistically significantly higher than that of their female counterpart. (T-test=2.699, P-Value=0.000). Statistical Tool used was Independent Sample T-test.

#### Conclusions

The study revealed that health workers have adequate knowledge on the NHIS Policy practiced in Ghana. Specifically, the males were found to be more knowledgeable than the females. Thus, it would be more prudent to sensitize the female health workers on current information on NHIS Policy practice in Ghana.

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## Expero4care model: to assess the quality of the learning outcome in healthcare trainings

#### BICEGO Livia, BUZZAI Patrizia, POLO Federica, BOGATEC Elisa, SAPIENZA Roberta, CERVAI Sara

#### Introduction

Training in healthcare service is a strategic factor for professional and organizational development.Despite many resources invested for training,few studies have been dedicated to highlight outcomes,a standard model to assess results isn't yet available.Literature on learning in adults confirms that it's necessary to focus on individual and organizational outcomes.This process constitutes the first step in possibility to calculate a social ROI of training in healthcare service.Scientific literature stresses on missing of theoretical and practical framework in evaluation of learning outcomes.

#### Purpose/Methods

The first implementation of Expero4care model in ASS1 has been managed to tailor the quality standard 'Expero model'.In 2013 has been tested in 6 European healthcare organizations as main aim of a LLP European project.The model is based on multistakeholder's analysis (five categories of stakeholders: leader,commissioner,insiders,trainees,outsiders)

involvement in order to verify expectations and perceptions towards outcomes of learning in specific training course.Quality indicators

(competencies,participation,transferability,outcomes,credits) are consulted to each category to identify expectations,before course and perceptions,after course.

#### Results

Implementation allows to identify and weight main gaps between expected and perceptions. Through Quality of results analysis it observes competencies applied in belonging structure and benefits for structure and system. In Quality of Competencies are identified gaps between training objectives and results analyzed in terms of self-perception of trainees and perception of commissioner and trainers. Through learning culture analysis, the model permits to highlight which is organizational culture approach in healthcare organization. Collected data are analyzed by an internal evaluation board, creating a quantitative evaluation matrix.

#### Conclusions

According to scientific literature (Griffin, 2012) the model offers: opening to stakeholders, systemic analysis, data collection and process of continuous improvement. It's sustainable because it can be managed internally by organization through a training evaluation board. The implementation in different European Countries is a first step toward the standardization of Expero4care model, where the next step will be to transform the model - coherently with ISO 9001:2008 -into a certifiable quality standard.

#### Comments

This project is funded by the EU LLP project code TOI 2013-1-IT1-LEO05-03975

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#### Joint training between Public Health Services operators and volunteers for synergic developmental methods

#### BICEGO Livia, VEGLIACH Alessandro, JUGOVAC Davide, GENEROSO Giulia, CIARFEO PURICH Rosanna

#### Introduction

The most incisive approach in treatment of alcohol correlated problems is the social ecological one. In this challenge Alcohology Service of Trieste, in addition to treat and stabilize patients, is in charge of their re-integration into self and mutual help groups. The network of territorial associations supports observance of abstinence. It's crucial that between Alcohology Service and this network there are joint educational events that aim to spread

knowledge and shared practical abilities. In this regard,a joint training was started.

#### Purpose/Methods

Alcohology Service organized a 40 hours course on alcohol correlated problems. This training course qualifies operators of territorial associations and healthcare professionals (this course gives 29 credits out of 50 required annually to work in the National Health Service). The program includes class lectures from Medical Doctor and Psychologists that also work at Alcohology Service and also comprise debates on educational material with territorial association's educators. For trainees there's also the possibility to attend groups of volunteer associations as observers.

#### Results

The course is at the 5th edition. Between 2009-2013, 87 persons were trained, 67 of which were healthcare professionals (physicians, psychologists, nurses, social services operators and educators); 20 of which were volunteers. The evaluation of questionnaires showed that 70% of participants considered the course "very relevant" and 30% "relevant" as regards its content. The 85% said that quality of readings is excellent and the remaining 15% that is good. The 65% considered this training "extremely effective" and the 35% "effective".

#### Conclusions

This shared program allowed to obtain three different results: training of territorial associations' volunteers (20 volunteers); basic training of new staff of Alcohology Service (9 healthcare professionals); training on alcohol correlated problems to healthcare professionals of other territorial services and hospital wards (not Alcohology Service) (51 healthcare professionals). Considering the constant annually attendance at the course and its good acceptance, this joint training program can be considered an excellent method to increase synergy between Public Healthcare Service and associations.

#### Comments

A special thanks to ASTRA Trieste (voluntary association for alcohol related-problem).

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## "Competency package" - for more patient-oriented healthcare

#### BØRVE Hilde Blindheim, KJOSÅS Reidun Braut, BJORVATN cathrine

#### Introduction

In 2012 Norway introduced a significant health reform which put an increased emphasis on collaboration between primary and secondary health care services. The main focus is prevention,



stronger user influences, and treatment of patients closer to where they live. One consequence of this reform is that some of the patient education about their diagnosis and life is being moved from the hospitals to the primary health service. The staff, therefore, need to improve their competency in ways of educating patients.

#### Purpose/Methods

At Haukeland University Hospital, we have designed a "competency package" for health care staff with three different modules. Motivational interview was chosen as the main method since the focus was changing habits and adapting to new life conditions for the patients. A salutogenic focus is also included in the modules. Experiences from patients were equal to the health care provider's knowledge throughout the process of developing the "competency package". Furthermore, we also had an interdisciplinary approach. Comprehensive evaluation is being conducted.

#### Results

The "competency package" includes: an introductory course in health education (5 days), a course of how to mobilize changes in behaviour (4 days), and how to work with coping processes (4 days). The training program is based on exchange of experiences, homework, discussion and reflection. Advisors from Haukeland University Hospital offer to coach the staff in the primary care as this generates new local patient programs, close to where they live. We believe this provides a culture of collaboration.

#### **Conclusions**

This "competency package" has been well received by participants and their leaders. In 2014 we plan to double our capacity because interest and demand for these courses increase. Participants report high scores on satisfaction and they report being able to plan and offer patient programs locally. It seems to be useful for health care staff both in the hospitals and in primary health care service. This has generated new offers and is part of more patient oriented healthcare.

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### The way to a patient process-oriented care

### JOHANSSON Anna, GIDEBERG Anette, GUSTAVSSON Susanne

#### Introduction

Hospitals have a challenge in creating a sustainable and safer healthcare for patients. Staffing in patient processes are often traditional and has not been adjusted to the development of care-processes. To be able to transform the way of staffing, there has to be a transparency of the patient flows, questioning of established practices and continuously improvements related to

patient needs. In Skaraborg hospital, Sweden a project is running with the aim to adjust staffing to patient processes.

#### Purpose/Methods

The project was inspired of a "brake through series" methodology including five learning seminars. From each ward a multiprofessional team was participating. Themes of the seminars were: 1. Process-mapping 2. Lean methodology 3. Identifying need for co-worker skills 4. Risk-analysis (patient safety) 5.

Management and continuous improvements The purpose of this study was to evaluate experiences from coworkers that participated in the project. The evaluation was accomplished with reflecting dialogues during the project and questionnaire afterwards.

#### Results

The co-workers considered that the project gave freed time to a structured approach for improvements. It was demanding but useful in their daily activities. One of the advantages with the seminars was listening to other wards and gets inspired by their improvements. Examples: • Adherence to basic hygiene routines improved from 35 % - 85 % • Collaboration with patients, developing a checklist and written counsel for discharge • Visualizing boards for steering, improving and risk assessment • Standardized communication

#### Conclusions

If the management in healthcare organizations creates opportunities for co-workers to work structured with developing patient processes, care is getting more sustainable and with a higher quality. Higher quality in terms of fulfilling patient needs, and also in terms of creating a better working environment to co-workers. Quotation from one of the co-workers: "A very good way to get started with improvements and an opportunity to get a holistic view of how we care for patients at our ward".

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#### **Aging Simulation Activity**

### CHIANG Chien-Wen, LAI Hsiu-Yun, CHEN Meng-Kan, LI Ying-Ying

#### Introduction

As population aging in Taiwan, there is an urgent demand to remodel the care system for the older people to catch up the critical situation. Besides the infrastructure and basic care of the older population, it is very important to improve the quality of care per se. Here, we report anaging simulation activity, which enables the staffs of the hospitalto empirically experiencethe physical and emotional conditions of aging. Upon these experiences, the staffs' care becomes much more patience and compassion.

#### Purpose/Methods

Firstly, the participants learned the basic knowledge of agerelated changes and developed empathy for the older people. Secondly, the highlights of the aging simulation, the participants were divided into several groups. The key was that the role-play leaded the participants to truly experience the feelings of the elder conditions such as slow responses, bad hearing and eyesight. Finally, participants discussed how to properly help the older people. Pair-t test was used to analyze the changes of their altitude after program.

#### Results

Forty-nine employees participated the activity, with a mean age of 30.6. After the simulation activity, participants showed much more respects and empathy to the older people. The improvement was significantly (p <0.05). They also learned how to deal with their own aging changes. Their feedback summarized the program educated them to become more sensitive to the stereotype of aging. They were now much more willing to care the older people with more empathic.

#### Conclusions

The aging simulation activity helps the participants to better understand the aging and the associated everyday challenge of the older people. The participants become more sensitive to comprehensively care the older people. A much more senior-friendly healthcare environment is effectively developed.

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#### The Efficacy of the SHARE Model Continuing Educational Curriculum Intervention on the Caring Behavior of Nurses: A Pilot Study

#### **HSU Tzu-Chuan, JANE Lee-Hsieh**

#### Introduction

This institute applied the SHARE philosophy (S: sense people's needs before they ask; H: help each other; A: acknowledge people's feelings; R: respect the dignity and privacy of others; and E: explain what is happening") as the core of caring to provide humane and holistic care to patients and their family members. Moreover, assisting clinical nurses with integrating the core principles of SHARE into clinical cases during nursing care and applying them to clinical care is vital.

#### Purpose/Methods

The objective of this study was to employ an e-learning course (i.e., the Caring SHARE Course) to provide clinical nurses with the ability to incorporate the SHARE service philosophy in their caring behavior, thereby improving the caring capabilities of nurses. This study adopted the expert consensus method to examine the learning objectives, course outline, unit content, course

materials, instructional videos, and applicability of the test questions of the newly developed Caring SHARE Course. A Caring SHARE Course was established on a learning website. Overall, 12 nurses with more than 6 months of experience working in the maternity ward of this institute who expressed willingness to participate in this study were selected as the research subjects and underwent the Caring SHARE Course intervention for 4 months. Qualitative analysis: This study convened 3 focus group interviews, each lasting approximately 2.5-3 hrs to gather information on the nurse-patient interaction behaviors, personal values toward care, feelings of achievement, and the lessons learned from the course from the 12 clinical nurses. We then conducted content analysis after organizing the transcript data. Quantitative analysis: Maternity ward patients or their family members assessed nurses' caring behavior using the caring behavior measurement (CBM) scale, which achieved a Cronbach  $\alpha$  value of .974. Overall, 112 people completed the pre-test and 113 completed the post-test. SPSS version 20.0 for Windows statistical software was used to conduct statistical analysis.

#### Results

(a) The results indicated that clinical nurses who completed the elearning course expressed a course satisfaction rate of 92.75%. (b) After the nurses had completed the Caring SHARE Course, 5 primary themes were identified: "Calmly listening to patients," "positively recognizing and praising patients," "respecting professional nursing judgment," "requiring practical demonstrations of caring techniques in addition to verbal instructions," and "practical care learning through narratives and concrete images." (c) The analysis of patient reactions to nurses based on the results of the pre- and post-tests. And t test analysis indicated that nurses demonstrated significa(a) This study adopted the expert consensus method to examine the learning objectives, course outline, unit content, course materials, instructional videos, and applicability of the test questions of the newly developed Caring SHARE Course. (b) A Caring SHARE Course was established on a learning website. (c) Overall, 12 nurses with more than 6 months of experience working in the maternity ward of this institute who expressed willingness to participate in this study were selected as the research subjects and underwent the Caring SHARE Course intervention for 4 months. (d) Qualitative analysis: This study convened 3 focus group interviews, each lasting approximately 2.5–3 hrs to gather information on the nurse-patient interaction behaviors, personal values toward care, feelings of achievement, and the lessons learned from the course from the 12 clinical nurses. We then conducted content analysis after organizing the transcript data. (e) Quantitative analysis: Maternity ward patients or their family members assessed nurses' caring behavior using the caring behavior measurement (CBM) scale, which achieved a Cronbach  $\alpha$  value of .974. Overall, 112 people completed the pre-test and 113 completed the post-test. SPSS version 20.0 for Windows statistical software was used to conduct statistical analysis. nt improvements in the two items of caring behaviors, namely, "completing requests that was promised to me or explaining to me why something cannot be accomplished" and "providing time for me to ask questions" (p < .01).

#### Conclusions

The e-learning course (i.e., Caring SHARE Course) intervention can be used to improve the caring abilities of clinical nurses. Consequently, this study anticipates expanding this course to all



nursing units and developing nurse caring qualities by implementing this course. We hope to facilitate nurse caring qualities in the workplace to provide holistic and humane care.

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## The Effectiveness of Reading Group for Enhancing Psychiatric Clinic Nurses' Group Leader Skill

#### LEE Pei-Shan, KAO Feng-lan, SHEN Shu-Hua

#### Introduction

The purpose of this study is to investigate the effectiveness of the Reading group for enhancing psychiatric clinical nurses' group leader skill.

#### Purpose/Methods

Subjects were 12 clinical psychiatric nurse who work in mental hospital in southern of Taiwan, purposive sampling and repeated measure pre-experimental design as the study method, inclusion criteria included: Has attend Reading group one day per week, and totally 12 weeks, 60 minutes reading time conducted discussing; 3 assessment scales used to evaluate the effectiveness, including "Group knowledge scale," "group self-capability assessment scale", "Reading guide group self-satisfaction scale."

#### Results

After the implementation of the training than before book reading group participants in the "community knowledge scale", there are significant differences (P <.05) scales progress of each project situation " group self- capability assessment scale" and so on; " reading group self-satisfaction scale 'average score was 8.5 points more than satisfaction; displayed nurse participation in each project would improve significantly.

#### Conclusions

This rreading group design could share experiences with each other through the group therapeutic factor and clinical nurses' feed back to, can improve clinical nurse's self-awareness and impletment correct group skills.

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## A study on the factors influencing the usage of Nursing Information Systems

### TSENG Wan-Ting, LEI Biying, LIN Chihung, ROAN Jinsheng

#### Introduction

A nursing information system (NIS) is one of key parts of a hospital information system. Its usage is highly related to the productivity of the nursing staff and the quality of healthcare. Past research on the usage of an NIS usually adopted behavioral intention to replace actual behavior measurement. However, there is always a gap between intention and actual behavior, rendering hospital administration difficulty in promoting the usage of an NIS.

#### Purpose/Methods

To investigate the factors influencing nursing staff's acceptance and usage of an NIS, a questionnaire was developed and validated before distributing to 500 nursing staff members of a medical center in Taiwan. 330 valid responses were collected and the data were then analyzed with structured equation modeling technique. Among the respondents, 62% were below 30 years old and 31% had more than 3 years of nursing work experience.

#### Results

The results showed that perceived ease-of—use and perceived usefulness of an NIS had positive impacts on the intention to use the systems. The intention to use the system had a positive influence on actual use of the system. A nurse's own computer efficacy can influence his/her actual usage of an NIS and his/her previous usage of similar systems is positively linked to being confidence of his/her ability to use a system.

#### Conclusions

The good interface design and the constructive functionality are two major factors to the acceptance of an NIS. Given that computer self-efficacy and past behaviour were tested to have the moderating and mediating effects on the intention-behaviour relation, this research believes that in addition to increasing their experience with systems usage, to improve users' own computer skills is key to turn intention into action.

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Investigating the effect of Agefriendly service to certify the people who help people in wheelchairs and elders

#### CHEN Yi-Han, CHEN Fang-I, CHEN Mei-Tsu

#### Introduction

Aging society changes the social structure and life style. Elders have changed in physical and psychological ways by getting

older, causing some safety issues in the daily life. With raising the elder's healthcare quality, medical institutions have to give employees more training courses, making them lend an attentive ear to elders.

#### Purpose/Methods

The research tools are a cross-sectional study and in-depth interview. Object of study is a regional teaching hospital; it gives people training courses of elder simulation experience. The main purpose of training courses is to simulate and experience elder's daily life such as shopping, reading and strolling. It also includes introducing and practicing how to push wheelchair safely and correctly. The training courses combine medical theory and practical experience.

#### Results

1,477 medical employees take in the training course. The rate of certification is 71.3%, and 1,053 people have accomplished the training. There is 95% rate of satisfaction to approve elder simulation experience. 82.5% people have a marked effect of elder 's cognition in the physical and psychological ways. Most of people undervalued elder's ability, even the people work in the hospital also misunderstood knowledge about aging.

#### **Conclusions**

In this rapidly aging society, it is very important to create an attentive living environment to elders. Beginning it in education is easier than other ways such as Japanese, they educate their children by elder simulation experience in the school. Therefore, in Taiwan, we start to integrate with many resources from each organization, making a lot of people experience it, understanding the elder's need, improving the attitude of aging healthcare, creating a friendly environment.

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Hospital Collaboration for optimal performance of upcoming administrators

VAZQUEZ-TORRES Dharma, DE FRIAS-TEJADAS Patricia, VEGA-SILVA Emmanuel, SALDAÑA-VINCENTI Patricia, ACEVEDO-SANTOS Deborah, BERDIEL-TORRES Luis, COLON-DELDADO Fernando

#### Introduction

The future health care administrator, who assumes the responsibility of providing leadership in this changing environment, requires the knowledge and the skills to achieve the set goals of the organization. The educational offering of the Health Services Administration Program at the University of

Puerto Rico, Graduate School of Public Health, provides administrative theory throughout the curriculum, culminating in a practical experience known as Administrative Residency.

#### Purpose/Methods

To assess the importance for future health service administrators of integrating managerial skills for decision making as major professional tools. Six students were placed at a healthcare facility where the health service administrator, acting as preceptor, identified a worthy group project according to their combined strengths as measured by approved courses, professional experience and the preceptor's own area of expertise. The project consisted of a needs assessment of the system's western healthcare region.

#### Results

In the course of the assignment, students felt and were perceived as professionals in their field. They were able to confirm that the knowledge acquired through previous courses, as well as their natural and acquired skills, contributed to the success of the research. Also, students were exposed to other healthcare professionals and were able to communicate and contribute to the solution of a real-life problem in a healthcare facility setting.

#### Conclusions

Students contributed to the strategic planning and development of the areas studied, and as the result of their projects contributed substantially to decision making in the organization. They presented their findings to the Board of Directors, allowing them direct exposure to the dynamics of board meetings. The preceptor and a faculty member evaluated their performance and identified the degree of professional growth in the students.

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## Session P2.14: Using healthcare services to improve public health

Health education collaborating with the community

BRAVO PULIDO Maria Jesus, LOPEZ MARTIN Maribel, COMAS SIMÓ Fina, VILAPLANA PENELLA Eulàlia, LATORRE GINES Vanesa, ARNAU SOLE Gloria

#### Introduction

Introduction: Health promotion and prevention in the community requires close as possible to give a better answer. This study explains the organization and development of a series of monthly lectures on various health topics, conducted in the ABS St.Hipòlit Voltregà, organized in collaboration with the President of the old



house in the village. has the distinction to be made outside the health center and the professionals moved to the community.

#### Purpose/Methods

Objectives:The aim is to act as community health workers collaborating with a social organization of the community and engaging the public in choosing the theme of the session.The methodology is planned together with the President of the House nursing a monthly meeting at the house an hour old . Each session will be conducted by three professional sanitaris.Posteriorment passing grade satisfaction survey

#### Results

Results: The subjects chosen for population health were: First Aid , anxiety and depression , memory loss , colds and flu , and finally joint pain . Data from satisfaction surveys reveal that of the total 178 participants, both the place and the duration of the talk seems a 83 % adequate and 97% described as interesting xerrada. Finalment 97 % of participants recommend health given session .

#### Conclusions

Conclusions: Health education outside the health center and the use of local old house to carry out a very well appreciated by the participants . Collaboration with the social resource alive as a very positive and enriching experience for health professionals . Dive into the community becomes a tool closer to the population to transmit, promote and prevent health issues .

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Attitudes, behaviors and perceptions of Greek population towards influenza vaccination: Hellas Health V

#### NIKOLOUTSOU Ioanna, PETROULIA Ioanna, GIANNOPOULOU Ekaterini, AGAPIDAKI Irene, DIMITRAKAKI Christina, TOUNTAS Yannis

#### Introduction

The influenza pandemic constitutes a permanent threat to public health. According to estimates, in an imminent influenza pandemic, 20-30% of the world's population will become ill, 30% of the manpower will be absent from work for 5-8 days, 8% of the population will be hospitalized and 1% may die. A key strategy against an influenza pandemic is vaccines. The purpose of this study was to estimate the self-reported rates of influenza vaccination and respective barriers to vaccination.

#### Purpose/Methods

The national household survey Hellas Health V was conducted during January 2013 and covered both urban and rural areas of the 13 geographical regions. The sample of 1087 individuals, aged ≥18 years old, was selected using a three stage, proportional to size sampling design and was representative of the Greek population in terms of age and residency. Telephone interviews were conducted according to the ESOMAR code of practice.

#### Results

Only 25.3% of the respondents stated that they underwent vaccination at least once in adult life, while 11% were vaccinated within the previous year (10/2012-01/2013). According to the Ecological Model, self-reported barriers to vaccination are divided into three levels (individual, interpersonal and systemic). At the individual level, the main reported obstacles were: lack of information (26.4%), incorrect beliefs (13%), while 33.2% stated that they forgot it. Non-recommendation by the attending physician was stated as the main interpersonal obstacle (9.9%).

#### Conclusions

In order to overcome barriers to vaccination, combined efforts should aim at the provision of information to the public concerning the effectiveness and safety of the influenza vaccine, as well as the encouragement of the healthcare workforce to act as a reminder about the timely uptake of the vaccination by the population.

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## A trained and informed population is a population that better manages your health

#### AGUZZOLI Cristina, MARIN Meri, SIMCIC Giuseppina, GIACOMINI Luisa, FURLAN Tiziana, BERTIN Barbara, RIGOTTI Alessandra

#### Introduction

The population of our helthcare organization is increasingly older and with high comorbidity of chronic diseases. It is essential, therefore, act in terms of disease prevention, protection of health or reduce the effects of chronic disease through health promotion and empowerment of the population. The first objective of the Nurse Territorial Team (NTT) is the maintenance of health in the population potentially frail and people with social and health issues.

#### Purpose/Methods

The NTT currently are 4, in areas consisting of one or more municipalities, the maximum 3500 residents for nurse. The NTT is working closely with the Doctor, with the social worker and hospital specialists. The NTT operates at the ambulatory, at

home and with population, he activates the formal and informal resources: associations, parish, local administrators. The activation of the NTT is performed by anyone report a problem or needs. The planning of activities is agreed with the doctor.

#### Paculte

Two of the NTT during 2013 have performed more than 3.500 home visits, over 3.000 outpatient procedures in ambulatory, of which nearly 1,000 health education and health promotion aimed at the individual user and / or your family. They were also very relevant interventions for the population with more than 12 meetings on the themes: cardiac failure, proper nutrition, mental health, cancer screening, respiratory problems. The NTT is also present at festivals to promote and disseminate the business of empowerment.

#### **Conclusions**

It is still too early to assess the real fallout of this operation on the general population, but the first results show that a population more informed and involved in their own path of health, access to health services in an appropriate manner available.

#### Comments

Based on the initial findings and the continuous demand of local authorities, it is the intention of management to establish this Nurse Territorial Team in other areas, to promote the best taking charge early, particularly people with more than 65 years.

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## A report of regional medical service to promote the health of community at disaster

#### **KASUGA Hideo**

#### Introduction

Medical co-op is a foundation of regional medical service to promote the health of community. Many people at Tohoku lost food,clothing,house,and life at March 11,2011 by earthquake. We have visited and supported them who lived temporary house 3 times. This is a report of our voluntary supports for them.

#### Purpose/Methods

We performed medical examination and health promotion for them. We measured the blood pressure and urine analysis. We suggested the meal especially salt intake and showed the safety physical exercise for elder people who need body and brain stimulation.

#### Results

Our voluntary staffs not only medical staff were very welcome to the disaster people. They needed communication with people. After our health promotions, they showed smile, thought the health by themselves, and improved life style.

#### Conclusions

Our regional medical service to promote health of community was useful for people at disaster.

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## A school pharmacist's activity -For the children of the area-

#### KOIZUMI Reiko, MARUMOTO Yuki, SUGIMURA Kentarou

#### Introduction

A school pharmacist is a system unique to Japan. Five persons' school pharmacist is in a asibi pharmacy now. We are performing the inspection and the lecture. It was investigated how that would be useful for children's growth and health.

#### Purpose/Methods

Urinalysis for finding children's illness. Water quality (a pool, drinking water), a school, the inspection of equipment. The environmental inspection of a classroom (illuminance, noise, CO2 concentration, ticks). The lecture about the danger of a medicine. The inspection of a meal room.

#### Results

Several persons' proteinaceous urine was found by urinalysis. Children went to the hospital. Since the chloride concentration of the water of a pool was insufficient, it found that coliform bacillus had occurred. Ventilation was bad. Therefore, formaldehyde was over the standard value. Washing of the plate was insufficient. Therefore, the residual substance was found.

#### Conclusions

By carrying out the above measures, the school pharmacist is protecting children's health and growth. The environment of the school in which children are present is maintained, and it has improved. Moreover, children were able to know the danger of the medicine at the lecture. School pharmacist activity is required in order to protect the health of the children of the area.

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## Promoting low-salt activities by cooperation and participation of community residents

#### SIMIZU Kuniyo, NOGUCHI Kazunari, SHIMAZAKI Miwako, SUGAWARA Kumiko, KOBAYASHI Yoko, YAMADA Masaki

#### Introduction

The people of our region have the habit of eating salty dishes which are miso-soup, salted vegetables and stewed dishes. It is said that high salt intake leads to hypertension or circulatory organ diseases. In our region, mortality rate of cerebrovascular disease is higher than national average; male 157%, female 129%, therefore we have been promoting cooking classes of low salt diets to spread low-salt for 3 years.

#### Purpose/Methods

It has been surveyed the following. Firstly we conducted a questionnaire of dietary habits to the cooking class students and those who do not. Secondly we measured salinity of miso-soup which cooked by the cooking class students. Thirdly we tested gustation by the standard salinity miso-soup which has 0.8% salinity.

#### Results

The result of the questionnaire survey, 46% who do not participate cooking class answered "high salinity" compared with 34% students. The salinity of miso-soup was adequate in most of the cooking class participants. Some of students said "Soup stock have been taken sufficiently", "I began measuring the seasoning", and "I could reduce salt although I had to cook differently for family who has hypertension". It indicates that low-salt activities have been successfully in gradually by continuation of cooking classes.

#### Conclusions

It is required that it is provided the way of cooking low salt diets, elaborate delicious recipes and its tasting for community residents. Our slogan is "DELICIOUS AND LOW-SALT". It is sure that we will be able to cause behavioral changes and promote low salt by continuing our efforts.

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## A Health Promoting Experience with the Blind

ANG Yen, CHONG Ellena, SEE Wee Dee, CHUAH Gaik Kin

#### Introduction

The visually impaired is a marginalized minority in Malaysia. The St Nicholas Home in Penang, Malaysia was set up to provide educational and vocational training to the blind so that they could eventually be integrated into the society. The Home has 102 blind "trainees" enrolled in their 6-month training program. It is found that many of these trainees are unhealthy; for example, about 24% of them are diabetic, and many are overweight/obese. However, the nutritional needs of the trainees are neglected, as reflected in the kind of food being served to them at the Home.

#### Purpose/Methods

The blind faces many challenges in life, due to their impaired vision. Their nutrition or health does not appear to be a top priority in their training curriculum provided by the Home. The Community Health department of the hospital decided to reach out to this group of individuals. A special 3-day health/nutrition course was conducted for them. Since the trainees take all their meals at the Home, we wanted to ensure the food choices in the cafeteria were healthy. Our intervention therefore focused both on the trainees as well as the canteen operators.

#### Results

Some 73 trainees (71% of total) attended our health course. Our goal is to teach them how to make good food choices despite their impaired vision. Thus, our dietitians taught the blind about food portion size by feeling with their hands. Our diabetic educators taught them to monitor their blood glucose by using the "Talking Glucometer". Health education classes focusing on healthy eating and diabetes care were given, with many interactive class activities. Our dietitians also taught the canteen operators about ways to make food menu healthier.

#### Conclusions

As the hospital is embedded in the bigger community, the health needs of the community become a concern for us. Our experience with St Nicolas Home provides a good example of a successful collaboration between a health care provider and a local community organization. It also shows that the health promoting benefit of the hospital should spill over to the community.

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## Community well-being healthcare strategies

#### VAZQUEZ-TORRES Dharma, DE FRIAS-TEJADAS Patrica, COLON-DELGADO Fernando, BERDIEL-TORRES Luis

#### Introduction

Castañer General Hospital, Inc., a nonprofit primary care center founded in 1942 and funded by HRSA, serves a population of

32,000 in a rural farming community. When need arises for specialized care, instead of entering a secondary health care facility, patients are hospitalized in the primary health care center. These local admissions keep the patients near their hometown and family while the quality of service is maintained and costs are controlled.

#### Purpose/Methods

The purpose of this study was to evaluate the quality of care offered patients in Castañer as to outcome and cost effectiveness, as compared to the average for Puerto Rico hospitals similar in characteristics (rural vs urban). A review of inpatient utilization statistics provided by the facility were evaluated for number of inpatients, average length of stay, and average charges.

#### Results

Hospitalization was mostly required for medical diagnoses of: Hypertension (25.35%), Diabetes (19.24%), Asthma (7.93%) and HIV (0.09%). A significant reduction of costs compared to the same service in other urban healthcare facilities was documented as well as average length of stay.

#### Conclusions

Access to health services and health outcomes are generally poorer in rural and remote areas relative to metropolitan areas. However, the concept presented by Hospital Castañer has improved the quality of care and helped in cost containment.

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## Building a culture of collaboration to promote the use of preventive health services in a rural county

#### CEHN Ching-Yuan, CHANG Pin-Yi, LAI Yi-Ling, CHIEN Shou-Hsin, HUANG Yu-Ting, LI Shu-Ting, LIU Yi-Hua

#### Introduction

Cancer becomes the leading cause of death in Taiwan. The government has therefore provided free screening for cervical, breast, colon, and oral cancer to reduce mortality and subsequent economic burden. In 2011, the national average of the four screening rates was 41.1%; however, the figure was only 18.4 % in Miaoli County. The low figure was possibly because there was only one public health center conducted this screening and often time less than 10 people showed up on each session.

#### Purpose/Methods

The study is to develop improvement strategies based on the Five Principles for Taking Action as promulgated by the Ottawa Charter to promote the use of preventive health services in Miaoli County. Benchmarking, key informant interviews, intersectoral and collaborative meetings and team brainstorming were conducted to build a culture of collaboration and inter-sectoral action.

#### Results

The number of participants in each screening activity increased from 10 to 336.Stakeholders from Public Health Bureau of Miaoli County Government, hospitals and NGOs participated in benchmarking and then decided on the collective action. An experienced expert as the coordinator interviewed community key informants to seek appropriate partners. The original singlestation mode was expanded to a collective action joined by 8 groups. The screening scope was expanded to cover health promoting parties, including more preventive services, health education and carnivals.

#### Conclusions

Building a local network is a key to the success because it maximizes the spread of influence through other local clubs or entities. Inter-sectoral collaboration could bring in more resources. Benchmarking and brainstorming can effectively induce to the development of a model that suits local circumstances. Questionnaire survey will be suggested in the future to investigate satisfaction levels of participants and whether they change health behavior and self care afterwards.

#### Comments

We thank the Public Health Bureau of Miaoli County Government and collaborative entities for working together to promote the use of preventive health services for the community.

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## The Experience of Health Promotion Involved Overseas Medical Mission

### CHEN Ming-Huang, CHANG Yuchen, SHIH Yun-Wen

#### Introduction

Since 1992, Chia-Yi Christian has been providing regular overseas medical mission for needy areas abroad. In addition to medical care, we aim to provide a holistic service including health promotion and community development to empower the local community.

#### Purpose/Methods

Since 2008, we conduct a community health development program in a slum area of Pasig city, Philippines, which includes (1)Empowerment by capacity Building including training for leadership, midwives and community health workers; (2)Campaigns for healthy youth (Millennium Development Goal-3&6), reducing perinatal mortality (MDG-4), and hungry children



(MDG-1&6);(3)Medical exchange between the local health services and Taiwan for community health development and health promotion;(4)Facilitating joint community health development by the partnership of local resources and the Philippine migrant workers in Taiwan.

#### Results

More than 50 health community health stations were established. All the midwives were provided with free delivery package and sterilization service in the community center. All the health stations were voluntarily operated. The perinatal mortality was reduced. The local medical services were changed the passively curative service to proactively provide health education in the community.

#### Conclusions

A health-promotion-minded hospital can provide an effective and sustainable medical mission in the needy community. The HPH member hospitals should be encouraged to provide health promotion in the deprived community to meet the Millennium Development Goals of UN..

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#### The Impact of Community Health Screening And Long-Term Health Education Programs of Residents' Health - A community-based Study

#### CHENG Chin-Chia, YANG Chiu-Hsien

#### Introduction

Community care stations provide diversity care service. One of these services is community health screening. By analyzing these screening results, the health situation of the community residents can be examined early. Thus the station can provide a continuous health care service in order to reach the target "high-quality health care, healthy communities," and to become the highest quality holistic care community hospital.

#### Purpose/Methods

In order to understand the impact of health screen and health education provided continuously through the community care stations. Our hospital hold health behavior investigation and health screening at a community care station for community residents in Qianjin District, Kaohsiung City in November 2011 and in April 2012. Between these two investigation, weekly blood pressure examination and community health education with long-term community day-care programs, exercise and catering services, were provided for these residents.

#### Results

The average age of the investigated residents was 56 years old. The top health problem was high blood pressure. After the above intervention, the number of abnormal blood pressure decreased from 63 to 25; the number of abnormal BMI reduced from 31 to 26; people with obesity reduced from 73 to 18. People with regular aerobic exercise habit and healthy diet behavior increased from 11.3% to 37.4% and from 16.7% to 54.8% individually

#### Conclusions

Our study revealed community health screening and long-term health education programs through community care stations have positive impact of residents' health.

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## Creating a correct-medication usage environment in the community

### CHENG Ching-Tai, CHEN Ping-Ju, HUANG Hui-Ting, CHIANG Ting-Ju, CHEN Hsien-Yu

#### Introduction

In 2008, the Chi Mei Hospital in Liuying founded the "Medication Educational Resources Center" with the purpose of integrating internal resources and forming alliances with external units and community resources such as pharmacist associations, hospitals, community pharmacies, and other health units and schools, and also coordinating with pharmacists to hold interactive lectures on the five core abilities of proper medicinal usage in different community care centers and schools.

#### Purpose/Methods

One of its important items was developing a correct medicationusage community care activity model for each district in Tainan. The hospital combined resources from Tainan's Pharmacist Association, Tainan's Community Care Centers, and Correct Medication Usage Consultation stops to provide the public of the district with the concepts of correct medication usage.

#### Results

The lectures are centered on "the five core abilities of proper medicinal usage". Apply creative teaching activities during 2013, a total of 168 times, including 32 times pain Medicine topics, total 33,724 people. Thus, the teaching material for senior citizens "Five Core Abilities for Proper Medicinal Usage - Illustrated Version" was developed with promotional handouts that use illustrations to show the five core abilities. Through pictures and animations, they achieved the effect of lively classroom discussions and igniting the students' motivations to learn.

#### Conclusions

Creating an environment for safe medicinal usage does not only require the government agencies to work hard, but would also

need the resource coordination and partnerships locally. This can prevent the public from receiving wrong medicinal usage information and from believing in exaggerated advertisements of medicine and food. The resource center is in charge of coordinating resources locally and providing mutual support in order to provide communities with a comprehensive environment for proper medicinal usage.

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The experience of the tour of Taipei International Flora Exposition for people with ALS with the Resource Integration Model

#### CHENG Hui Ming, CHEN Shu-Ting, HWANG Betau, LIU Mei-Wen, WANG Li-Fen, HUNG Raw-Pou

#### Introduction

Motor Neuron Disease (MND) is a kind of rare disorder, which is also called "people with Amyotrophic Later Sclerosis (ALS)." Although the people with ALS are physical disability, respiratory and swallowing difficulty, most of them still like to enjoy outdoor activities. This is the first time we hold the International Flora Exposition in Taiwan. For providing a relax environment and fulfilling the dream of the people with ALS, Taipei City Hospital works with Taiwan Motor Neuron Disease Association to held the 2ed tour of Taipei International Flora Exposition for people with ALS on March, 2011. There are 39 people with ALS and 93 members of their family joined. The tour is successful with the integration of medical resource, local government, and administrative support of Taipei International Flora Exposition. This is a successful experience of the Resource Integration Model.

#### Purpose/Methods

Purpose: The purpose of this tour was to introduce resource integration with hospitals, Taiwan Motor Neuron Disease Association, and local governments, for the people with ALS to remove their difficulties and relax their mind by the outdoor activities. It's a good way to encourage them. Methods: The tour was prepared for 3 months, and it was including over 3 times of location checks and 6 times of cross-department meetings. The hospital was the main charged for the whole planning of the tour, supported emergency medical service, dietary provision, cost of tickets and insurance. Social workers of Taiwan Motor Neuron Disease Association arranged their traffic and lodging. Local government and organizers help us with meal locations and guiding illustration.

#### Results

There are 39 people with ALS, including 3 patients with respirators, and 93 members of their families visited international

Flora Exposition. There is only one patient with respirators who didn't complete the whole tour. And others make their dream to join Taipei International Flora Exposition. After the tour, we make the survey for the people with ALS and their family. The design of questionnaires adopted five-point Likert scale. A total of 116 questionnaires were distributed, and valid return rate was 63.6%. The result shows that, the time setting satisfaction rate is 97.3%, the schedule satisfaction rate is 97.3%, the lunch satisfaction rate is 95.9%, tour guide satisfaction rate is 100%, the whole tour satisfaction rate is 100%, and the next tour joined willing satisfaction rate is 100%.

#### Conclusions

1. This survey is the references to understand the satisfaction rate with people with ALS and their families. The design of questionnaires is not qualify. The valid return rate is low because some members of their families didn't make the questionnaires, only the main caregivers of the family make the questionnaires. 2. We already prepared the back-up plan to take care the people with ALS who also used respirators. Thus, there is no accident in this tour. We'll more consider about the outdoor actives time on the people with respirators.

#### Comments

It's very important on cooperation between hospitals and Taiwan Motor Neuron Disease Association for the outdoor actives of the people with ALS. To plan with increasing healthy for patients, reducing the dangerous factors for outdoor actives, such as the sense of security, the healthy concerned, self-disability, and constraints of interpersonal relationship, it'll make the people with ALS and their families to join this kind of international tour. Thanks for the help by government and other organizations to make this tour is succeed.

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Improving knowledge and attitude of medication use in students and community residents

#### CHIEN Hsiu-Yu, LIN You-Meei

#### Introduction

In order to enhance the public's knowledge of medication use, we setup a "Medication use education center" since 2011. Beside to give right concepts of medication use to adult people, we think it is much important to have correct concept since in childhood. For this reason, our pharmacists go out hospital to cooperate with school teacher to strengthen the correct medication education in campus and integrate resources with community pharmacists.

#### Purpose/Methods

We contacted to Community Office nearby hospital in Zhonghe District, New Taipei City, Taiwan, community pharmacy and



schools in New Taipei City, Taiwan to held lectures or activities during 2011 to 2013. At the mean time, we develop and design interactive teaching plan and material by ourselves. In 2011, we also used the questionnaire for community adults and students to know whether they learned the key concepts of medication use.

#### Results

We shared our teaching materials to community pharmacists and organized a group with them to cooperate and communicate smoothly, and worked with Community Office to hold lecture every month since 2012. In 2013, we developed teaching materials for teacher with school teacher. During 2011 to 2013, we have held 157 events in schools and communities. The average score of questionnaires was 2.82 points in pre-test and 3.65 points in post-test in 2012 and 3.76, 3.92 in 2013. (Total 5 point)

#### Conclusions

It is very important to educate people about correct concept of medication use. Only lectures or activities hold by ourselves is not enough, it need penetrate in people's daily life. We successfully set up a net work between hospital pharmacists, community pharmacists, leader of community office and school teachers. Through three years cooperative and continuous education, from the score of questionnaires, the knowledge and attitude of medication use is improving and we will keep teaching people and expanding our partners.

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A collaborative program between community and hospital to manage head lice infestation in remote area in Eastern Taiwan.

### CHIU Yun-Ke, YEH Jih-I, WANG Ying-Wei, HSU Wen-Lin, LU Fang-Tsuang

#### Introduction

Although head lice infestation (pediculosis capitis) is treatable, it remains prevalent in remote areas in Eastern Taiwan, especially among elementary school students. This problem is overlooked by mainstream health care system in recent years. Consequently, resources needed to deal with the problem were insufficient. Besides, inadequate personal skills and the lack of sufficient caregivers made the situation worse. To tackle the problem with limited resources, we had developed a cooperative program between community and hospital.

#### Purpose/Methods

The program was implemented as follows. First, we provided screening combs and pediculicide, and educated community members to learn how to screen and treat head lice. Second, we

recruited volunteers from community to help screening and treating head lice in the school and the community. They also educated community hygiene in households. Third, we trained school pupils to learn how to screen and eradicate head lice, and encourage them to help each other. Several campaigns were held for mass screening.

#### Results

This program started in December 2011. Two screening combs and little pediculicide were available in the school before the implementation of this program. The cumulative prevalence of active infestation of pediculosis capitis, which means living lice were detected during screening, was 69.9% (n=65) in the school during the first month of implementation of the program. There were 10 (11.2%) school pupils who had active infestation of pediculosis capitis 1 month later, after 4 consecutive mass screening and treatment in the school. Five cases were suspected to have drug resistance. Follow-up screening in March 2012 revealed 21 cases (22.6%) of active infestation of pediculosis capitis in the school.

#### Conclusions

This program fulfilled the community need to manage pediculosis capitis. By teaching community members and pupils proper skills to screen for the infestation, providing the combs needed for screening and treatment and medical support when needed, this program lowered the head lice infestation rate among school children. However the recurrence after long school breaks in the winter suggested the need to expand the program to involve the families of all involved students. Much support from health departments was also needed.

#### Comments

Through collaboration between hospital and community, we had developed a program that fulfilled the community need to manage pediculosis capitis in remote area. By training community members and school pupils, they could gain capacity to manage pediculosis capitis by themselves. The volunteers in the community could help health professionals to contact more patients in the community. Further support from health departments and strategies to invite more community members in managing pediculosis capitis may strengthen the effect of this program.

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To create health promotion culture in the community — Utilize health knowledge to change the behavior of people in the community

DING Ji-Juang, LIU Hui-Jung, YANG Shih-Hsien, LIN Su-Ching, LIN Shoei-Loong

#### Introduction

Obesity becomes a serious problem in 21st century. Not only it can increase the risk of cardiovascular diseases but also increase the complications such as dementia, disability and incontinence. In order to create health promotion culture in the community, the professional medical team of Taipei hospital helped people in the community increasing the ability of self-caring and health promotion by introducing the knowledge of health behavior and lectures of sports.

#### Purpose/Methods

The project was executed since August 2012 to November 2012. 30 citizens who lived nearby Taipei Hospital were chosen. The average age was 65 years old. The outcome was measured by body weight, body mass index (BMI), body fat and visceral fat monthly.

#### Results

After lectures and exercise introduced by the profession medical team for 4 months, The average body weight decreased from 66.10 Kg to 63.18 Kg. The average body mass index (BMI) decreased from 26 to 25.25. The average body fat decreased from 32 to 30.68. The average visceral fat decreased from 15 to 13.

#### **Conclusions**

The aged population increase year by year and how to care themselves becomes more and more important. The project – how to create health culture in the community not only makes people to eat and exercise healthier, but also makes people to communicate with others. Thus, physical and psychological wellbeing can be achieved.

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## Partnership work in Northern Taiwan: a survey of health promotion service for community needs

#### HSI Wen-Yun, CHANG Shu-Wen, CHU Shu-Hsun

#### Introduction

Development of cities will face a lot of social, hygienic and ecological problems. In 1986, the World Health Organization (WHO) advocated "Healthy Cities Project" and in Ottawa Chapter for Health Promotion addressed five health-promotion strategies. As we know the major diseases have shifted from communicable diseases to chronic diseases over nearly decades. Therefore, the social environment, health knowledge and behaviors became important determinants of people's health status. But the medical resources were limited, how to allocate medical

resources, build partnership and implement efficient health promotion for community needs became an important issue for public health.

#### Purpose/Methods

The purposes of this study were to explore seven district's community needs in Northern Taiwan and its associated factors based on the people live in these areas. This was a community-based cross-sectional study. The participants were residents over the age of 18 in seven districts. All subjects were interviewed according to the structured questionnaire with the help of trained interviewers. This questionnaire included information about personal data, medical care-seeking behaviors and health promotion needs. Multiple regression analysis was used to analyze the data.

#### Results

Total 1,044 participants complete the questionnaire and 60.3% were female. Almost half participants were graduated from college. 64.7% people were choosing to go to clinics or public health centers when they felt sick. About 77.7% people need community screening, health education lectures or both. Gender, education background and medical care-seeking behaviors were the three significant predictors for health promotion needs. These predictors explained 4.2% of the variance of health promotion needs ( $\Delta$ F=14.986, P=0.000<0.05).

#### Conclusions

Partnerships encourage collaboration between government ministries, non-governmental organizations and neighborhood magistrates. As a result, we know the feature of community demography will influence resident's health promotion needs. Allocating medical resources and building up partnership in community also are difficult decision making process. We suggest that the government should reintegrating the community resources and manpower. Second, hospitals should actively participate in the construction of health community. At the time of evolving communization services, we can also try to build up a community hospital service network.

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## Building Live a Healthy Life and Create a Beautiful New Life

#### **CHEN Hui-Ju**

#### Introduction

In September 2011, United Nations held a High-Level Summit on Non-Communicable Diseases, which pointed out that 63.5% of global death toll is caused by NCD, such as cancer, cardiovascular, diabetes and chronic respiratory, and impedes the economic development worldwide. Furthermore, it pointed out that unhealthy diets and lack of exercise are the major risk factors. To lower the impact from these risk factors, it is necessary to call for



co-ordination from different departments, fields, and public and private sectors, and adopt cost-effect strategies.

#### Purpose/Methods

Help the residents of the Township of Yuan-Li learn about the idea "Live a Healthy Life and Create a Beautiful New Life", and make them understand that health is a right and health care is a personal obligation. Invite professionals from different departments and the community to form an estimate committee. After completing the questionnaire for obesity environment estimate, invite professionals and scholars to discuss strategies together. In addition, plan an action scheme for popular issues and then intervene after conducting a survey

#### Results

A. Environmental Improvements 1. There are six health improvement institutes that were originated from health clinics, and the number of people who come for consultation is up to 2,000. 2. Healthy diet promotion: There are now 4 food stores that indicate the amount of calories on their meal boxes. 3.

There are six dining areas for workers posting the posters about vegetables and fruit assisting cancer prevention. 4.

There are six checkup stations, which locally and conveniently offer health checkup services. 5. There are four companies posting health slogan posters. 6. There are four walking trails for exercise. B. Behavioral Improvement 1. 3,000 residents come voluntarily for blood pressure tests, and they are transferred to clinics for further treatments accordingly if necessary. 2. Health product purchases: There have been 4 government units which have

ordered 500 healthy meal boxes. 3. 500 healthy products have been used as souvenirs for official occasions. 4. 1,000 residents have come voluntarily to the checkup stations for heath checkups.

#### Conclusions

A family unit is just like a community. We should all know that health improvement and health education are everyone's business. Also, it requires constant and long—term efforts to keep a community aging healthily. Thus, we need to reach a consensus among different departments and private organizations. To reach the final goal of living locally and healthily, relative government authorities should have complete plans and designs. It is expected that the vision "Live Healthily and Live Long" will be planted in everyone's heart by this project

#### Comments

The township of Yuan-Li has set up a health improvement committee among different departments. An evaluation for community resources and requirements will be conducted annually. Accordingly, the issues for the community health will be settled. Based on the Ottawa Charter and the strategic planning of the SWOT Analysis, the township of Yuan-Li authorities are now promoting "Healthy Energy, Active Aging, Beautiful Life". We include all these health improvement issues in the agenda in our community conference annually. We also request the Social Affair Section to raise relevant problem solving strategies annually and to report and revise its effectiveness when necessary.

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A Review of the Effectiveness of the Community Health Agenda Promoted via the Community Health Promotion Committee

### HUNG Ta-Chuan, CHAN Hsin-Lung, HUANG Tsu-Hsueh, HSIEH Yi-Fang

#### Introduction

In order to effectively enhance the benefits of community resource integration and utilization, in August 2010, "Tamsui Mackay Memorial Hospital Community Health Promotion Committee" was established in Tamsui, Luzhou, and Wugu Districts. So far, 54 organization groups, including groups from public sectors, urban village offices, the Community Development Association, Churches, Schools, Community Building Management Committee, etc, have participated in this effort. Two meetings are held every year, to jointly discuss community health promotion agenda, and setup of Health Stations.

#### Purpose/Methods

Through collection of the needs from the organization groups, discussions on annual promotion guidelines and the group's willingness to participate, jointly promote the plan of The Health Promotion Administration, the agenda were finalized in March 2013 as follows: "Tobacco, Betel Nuts and Alcohol Prevention", "Obesity Prevention", "Improvements for Obesity-provoked Environment", "Active Aging" and "Medication Safety". To facilitate implementation, task force meetings were conducted for each agendum to discuss promotion models, contents, and progress schedule, and to review progress achievement status.

#### Results

In 2013,nearly 200 sessions of health promotion seminars were conducted, with 15,000 participants and overall satisfaction rate of 97%.22 Health Stations, serving nearly 25,000 service counts. Results as follows: creating three tobacco-free fields. betal nut cessation rate reaching 75%; total of 1,321 people participated in weight control, and 3127.6 kg weight loss is achieved; rendering 4 safe exercise areas ,coaching 20 dining halls on healthy meals; Encouraging elderly to participate in activities and 35 volunteers are Senior.

#### Conclusions

Via the Community Health Promotion Committee for the various agenda on health promotion, the partnership relation is close, effective and the results are fruitful. Looking forward, more willingly groups will be invited to participate in the Committee, to jointly promote community health buildup activities, and foster physical, mental and soul health, i.e., the holistic health, for the general public.

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Correlations between healthy behaviors of environmental volunteers, their clinical parameters, and their family members' health attitude

#### CHEN Yi-Shin, CHEN Ching-Yuan, LAI Yi-Ling, CHIEN Shou-Hsin

#### Introduction

The environmental volunteers play important roles and contribute much environment benefits to local community.

#### Purpose/Methods

However, little is known about the relationship between volunteers' health status, their life style, and family members' health attitude. The study participants were ninety-seven long-term volunteers from recycle stations at local community in central Taiwan. Correlations between their health status and their family members' health attitude were surveyed.

#### Results

The results revealed that the days involving in the environmental protection programmers per week were negatively correlated with their waistline and BMI respectively(r=-0.334, p=0.011;r=-0.301, p=0.022). Their vegetarian frequency per week was correlated with family members healthy diet habit (r=0.252, p=0.035). The years involved in environmental protection were also correlated with the years on vegetarian diet. Diet habit of the family members was associated with volunteer's fasting sugar ( r=-0.31,p=0.009). Good exercise habit also revealed less severe proteinuria ( r=-0.318, p=0.008).

#### Conclusions

The results of this study suggest that environmental volunteers' health attitude will affect their family members. The more they involved in environmental protection activity, the better their health status. Promoting environment protection in local community not only improve the volunteers health status but also their family members' health attitude.

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#### Providing a community-based longterm care and health promotion service office for disabled elderly

### LO Hsien-Yi, LIN Shu-Chao, HU Shu-Hsien, TSAI Shin-Yi, HSU Yi-Fang, TSAI Tsung-Lung

#### Introduction

The population ratio of elderly people in Chiayi County is 15.8 percent, ranking the highest in the whole country, while in Budai township is up to 17.5 percent. A rapidly aging population increase long-term care needs. As the only public hospital at coastal Chiayi County, it is our responsibility to provide the community-based long-term care and health promotion service location for disabled and elderly people.

#### Purpose/Methods

(a) To construct "long-term care and health promotion location": provides accessibility, continuity and convenience of service, and reaches the goal of aging locally. (b) To develop community care in the ground station and integrate multi-service network to regional resources and diverse functions. (c)To build a single window service for health policy and social affair resource referral processes.

#### Results

Between Jan.-Nov. 2013- the elderly disability population increases and up to 52.8 percent , shortening the service process to 13 days. Services statistics- home service 181 people (utilization of 42.5%) , home care 19 people (utilization of 4.5%) , home rehabilitation 19 people (utilization of 4.5%), respite services 9 people (utilization of 2.1%).

#### Conclusions

This project could activate in-place unused space into service office. With the assessments done by the care managers, individualized care program would be developed. Based on the needs of the individual case, each will be referred to the relevant units. The healthy elderly also have the opportunity to participate in community activities, and revitalize production capacity of the elderly.

#### Comments

This project will not only make the public sectors a lateral link, but also connect the resources in the community. The elderly can live in the original area and assess health promotion activities and related knowledge. The disabled can be properly cared as well.

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Medical Tours to Remote Areas Lacking Medical Services: A



## Satisfaction Survey From Remote Areas of Kaohsiung City

### LIN Pei-Ching, HUANG Chi-Hsien, CHEN Wen-Hsu, CHENG Ya-Ai

#### Introduction

Healthcare services are provided to areas lacking medical resources so that all insured people receive proper medical care. During 2011 to 2013, medical tours were arranged every Tuesday to remote areas of Kaohsiung City where medical care is scarce. The medical services provided included family physician checkups, basic measurements (e.g.,blood pressure and blood sugar measurement), and health lectures.

#### Purpose/Methods

This study investigated the satisfaction of the general public in the remote areas regarding the medical services provided by the case hospital. During 2011 to 2013, the Health Insurance Bureau conducted a retrospective survey to determine public opinions and satisfaction by collecting data regarding waiting time, effectiveness of medical services, medical facilities, physicians' attitude, communication skills, and outpatient sessions. A total of 307 people were surveyed.

#### Results

Among the 2011 questionnaire responses, outpatient sessions had the highest level of satisfaction, whereas waiting time had the lowest. Among the responses from 2012, medical effectiveness, physicians' attitude, and outpatient sessions had a relatively high level of satisfaction, whereas medical facilities had the lowest. In 2013, physicians' attitude had the highest level of satisfaction, and medical facilities had the lowest. Comparing the responses across the three years revealed that physicians' attitude was increasingly perceived as satisfactory. Regarding waiting time, improvements were evident. However, regarding medical facilities, the satisfaction level was consistently low.

#### Conclusions

Despite the unavailability of comprehensive medical facilities, the results indicated that how medical services are provided in remote areas can still be enhanced to achieve high levels of satisfaction by improving service attitudes and adjusting clinical times.

#### Comments

In addition to actively discovering undiagnosed patients or assisting people with poorly controlled medical conditions, providing medical services in remote areas also function as a communication channel among patients, hospitals, village chiefs, and health and civil service agencies. This is indeed a crucial role that the medical service tours have been playing.

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## Long-term health promote programs intervention in remote community – as example in Quchi community

#### SHYU Rong-Yaun, WANG Shu-Guei, HUANG Bin-Han

#### Introduction

Community health promotion Is one of the important projects for public health, Quchi community is a community Taipai Tzu Chi Hospital get involved health promotion program for a long time, and the population most elderly because the emigration and remoteness. However, most people are healthy in the community with the clean environment and simple lifestyle, And most elderly still able to farming, but how to maintain the healthy elderly population and avoid "geriatric syndrome" is a considerable challenge.

#### Purpose/Methods

Combine resources from Taipei Tzu Chi Hospital and local health bureau and local communities, we start community health development program from 2011 to 2013, and implementation in the three years health promotion program. According to the community development theory by Anyanwu (1988), community development process include four main points (1)inducing Individual and community members Self-learning (2) strengthen the ability of community members (3) start with the important issue (4) stimulating critical consciousness. This study base on the four main points, and step by step with three years health program, including health lecture, Health care station, Volunteer Training, Community Care Activities, Health and Fitness courses, Handicraft arts courses and Elderly health checkup. Combined with the local lifestyle and religion in this participatory action research,, and use questionnaire to assess elderly satisfaction.

#### Results

In three years cooperate with Quchi community, we training the local volunteer groups for building partnerships. and teaching the right knowledge. Establishing the sense of belonging by combining community characteristics and religious cultural, and enhance organizational capacity and increase community organizations with local festival. The community health lecture and health care station has been conducted since 2011. Established physical fitness club and health checkup for elderly at 2012. In 2013, we established handicraft arts courses and clean up mountain activities for enhance environmental awareness. Activities satisfaction was 94.7%, 99%, 96.15% from 2011 to 2013, and without the resources from government and hospital, people still can perform the concept of empowerment.

#### **Conclusions**

Community health promotion is one of important issue in Taiwan, in addition to the physical environment, the psychological sense of belonging is also important. The emphasis of this three years program is psychological sense of belonging, we believe that is not only a important index but also the key point to maintain three years program. Besides creating a supportive

environment and versatile volunteer organization is also one of the important factors for community health promote.

#### Comments

Community health issues is a very important issue. Community health issues will be accompanied by time and population structure, and other factors, and new health problems always coming, in such a information explosion generations, how do older people have to go to get the right care knowledge, is one of the challenges of community health promoters, and still need to monitor the situation and keep empowerment.

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The Provision of Health Screening and Preventive Services among Disabled

Population in Chiayi County, Taiwan

#### SIE Ning-Huei, CHEN Chun-Po, LIN Ming-Nan

#### Introduction

Disabled populations have confronted substantial barriers to services to improve their overall health- wellness, health promotion and preventive services. According to Taiwan Ministry of Health Welfare statistic, the total number of disabled population is 1,128,032 in Taiwan and there are 38,781 (7.30%) in Chiayi county which is the 3rd county of disable population. Chiayi County is an agricultural county and also the oldest county in Taiwan. It is more difficult for disable people to access healthcare resources because of their disease status and lack of social support system such as scarce public transportation.

#### Purpose/Methods

We together with Bureau of health of Chiayi County developed an integrated health screening program for disabled populations in rural Chiayi County from August to October 2013. The program aimed at reducing the health inequality. Besides outreach integrated preventive services to provide a better accessibility, we also developed a referral system for the further medical intervention if the screening results were abnormal. The screening package included medical history, high risk life style behavior, blood biochemistry test , urinalysis, viral hepatitis marker ( high prevalent rate in Taiwan), EKG, Pap smear, colorectal, breast and oral cancer screening which were served in a half day. The health professionals from hospitals and local health stations and volunteers from community provided the services.

#### Results

Overall 1,275 disabled people complete integrated health screening program, there are 607 males and 688 females, and average 54.9 y/o. 23.8% are overweight and 25.8% are obesity. 191 are ever or current smokers and 86(45%) CO test are

abnormal. For the hepatitis, The type B and type C viral hepatitis carrier rate were 12.4% and 12.7% respectively and among them, 7 have higher  $\alpha$ -protein level indicating possible hepatocellular carcinoma. There are 30.8% of the participants with blood sugar over 100mg/dl which needs further evaluation and health education. Even more surprised was nearly 60% of the participant was found to have hyperlipidemia. 23% are in stage 3 to 5 chronic kidney disease. For cancer screening result, the Pap smear found out early cervical cancer in 6 patients, abnormal leukoplakia in 13 patients. Positive fecal occult blood test was found in 14 patients. There were 3 female patients with abnormal mammogram. All these patients were referred to hospital for further diagnosis and management. But there are have no significantly difference between mountain, sea and plain areas of Chiayi County.

#### Conclusions

Disabled people may have several chronic diseases. Due to the lack of social support system, Most of them either haven't been found or did not receive adequate management. Our program provided them the chance to have better understanding and treatment. Because of the physically challenged condition, it takes longer time for disable people in receiving medical service, it would be the barriers for maintaining their health. In our community outreach program, we invited volunteers to participate in guiding and accompanying the disable people, it will also benefit for the community in building up a friendly atmosphere.

#### Comments

It is a preliminary program in Chiayi county in providing outreach preventive services especially designed for disable population. It will be helpful in reducing the health inequality. Hopefully through our efforts all disabled population will be benefit from such program.

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A health promotion program of remote mountainy communities in Central Taiwan through the collaboration with local Churches

#### TSAI Song-Yen, HUANG Jin-Shan, YAN Yu-Juan

#### Introduction

The people, age above 40 years old, living at Shinyi village, Nantou county were the candidates for our study. A series of health examinations included blood pressure, blood samplings, and cancer screening for oral, colon, breast and cervix were performed. Abnormal results were found in 82.4% of the participants, including an early stage breast cancer. 52.8% of the abnormal cases were followed up at the outpatient department



and 57.6% of the cases with follow-up were improved in their laboratory results by lifestyle modification and medical treatment, if necessary. The long-term effects of these cases are still needed to be evaluated.

#### Purpose/Methods

The people, age above 40 years old, living at Shinyi village, Nantou county were the candidates for our study. Through the collaboration of local churches to broadcast the information of our study, we perform a comprehensive health examination for the volunteers. The health examinations include questionnaires, blood pressure, blood glucose, related biochemistry tests for metabolic syndromes, hepatic and renal functions, and cancer screening for oral, colon, breast and cervix. The physician and case manager explained the results to the recipients. Health education including diet control and exercise, etc. was given to change their abnormal lifestyle. The residents were followed up at the outpatient service regularly.

#### Results

In total, 783 residents, 8.2% of total population in these areas, participated in the study with an average age of 56 years and women ratio of 61%. Abnormal results were found in 82.4% of the participants, including an early stage breast cancer. 52.8% of the abnormal cases returned to our outpatient department service for further management. The lab oratory findings including blood pressure and biochemistry data were improved among 57.6% of the of the cases with regular follow-up.

#### **Conclusions**

According to the results of the above study, very high abnormal rates of the laboratory findings were detected in our participants. Through the intervention of lifestyle modification and medical treatment, half of the cases had improvements. It showed that a health promotion program by collaboration with the local churches to alleviate the health status of the residents in remote mountainy areas is effective in this study. The long-term effects of these cases are still needed to be evaluated.

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#### Bio-ecological System identified in Community Dental Health Care Service Learning

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#### Introduction

Bio-ecological system is an important framework helping us understanding bidirectional influences between children development within their surrounding environment systems. Service learning program in medical education encourages the formation of positive relationships with people of different socio-

cultural backgrounds, leading to the development of communication skills and cross-cultural understanding. But remain underutilized and unexplored in Asian medical education in learning the system based practice during conducting community service learning program.

#### Purpose/Methods

In order to study how dental health care services in remote area generate their horizontal connection and vertical delivery system? Fifteen medical students volunteered one day free dental health care services in a remote area at eastern Taiwan, where no dental service clinic found around 19.5square kilometer. They learned bio-ecological systems and join every meeting in prior. Students were responsible for dental preventive educational program, and join the whole service process. Focus group discussion was done to identify the bio-ecological system.

#### Results

The working system was identified as five layers. The direct contact system children receive free dental health care containing holiday school, medical students and Tzu Chi International Medical Association, family, community and local health care system. Health care educational activities, free dental care were in mesosystem. The philosophy of Buddhist Tzu Chi Foundation, public policy and socioeconomic status of family were in exosystem. Macrosystem comprised of culture and social values. Outermost, children's growing is affected by changing life style and time sequence.

#### Conclusions

Service learning offers medical students opportunities in developing one of the core competencies of ACGME (accreditation Council for Graduate Medical Education); i.e. system based practice. Identifying the different layers of each system in delivering a free dental health care service program help us recognized how the system structured and the changes or conflict in any one layer that may ripple throughout other layers.

#### Comments

In order to offer more children center health care, identify the systematic structure of health care delivery services at community which lead to more understanding the interactions between different bodies are mandatory. Medical student not only understand community children's needs but also realized a sustainable community health care delivery system should rely on a culture of collaboration among different layers of each stakeholders.

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Use of the community-hospital collaborative model to promote public health promotion participation rate

### SU Yi-Lin, CHANG Chih-Chieh, YU Wei-Hao, CHIH-CHENG

#### Introduction

Under the worldwide aging trend in recent decades, the complicated healthcare markets and chronic diseases epidemic made the healthcare provision should be reoriented. To slow the deterioration of this situation, there is a focus on prevention, continued with the community empowerment dialogue; important is to promote the health plan continues to mobilize community resources and capabilities of participants to stimulate and enhance community capacity to solve problems and gather health awareness.

#### Purpose/Methods

January 2012 began to use of the community-hospital collaborative Model, according to the Ottawa Charter Health Promotion Programme planned "health self-management - love yourself Hold Health" campaign, to promote the establishment of Xizhi District Health Management Board to construct health management, establish health management positions, for a health lectures and activities, build reward system, the establishment of community support network, set up community care system.

#### Results

January 2012 to December results for the number of participants totaling 1,015 people, breast Photography completion rate of 58.33%, FOBT completion rate of 84.38%, compared with 100 in mammography and FOBT 24.7% and 23.93% is much higher; participate in community integrated health checks accounted for 36.65%, 29.26% community tour activities, 15.86% participated in weight classes; totaling 5,934 people participated lectures and activities.

#### Conclusions

Hospitals and public health personnel to shoulder defenders, but for the purpose of chieving sustainable development, the concept of health and health self-management concept deeply rooted in the hearts of people in the community is crucial. By community wealth of business experience, deep community, empowering communities to directly meet the needs of the people, let the spirit of deep planting plan.

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#### **Local Volunteers System**

### YU-LING Hsieh, CHIEN- WEN Chiang, MENG-KAN Chen, YING-YING Li

Introduction

Volunteers always come from other regions which are different regions they serve. However, continuity about the issues is always lacking. For this reason, "Local Volunteers System" has been developed. It means that local residents can do something for themselves. We recruited volunteers from their own communities and trained them with professional knowledge. Then, the volunteers can be a professional team on healthcare in their community. Furthermore, they not only solve problems themselves but also arrange the activities on healthcare promotions.

#### Purpose/Methods

According to real condition in the community, we trained the local volunteers about healthy diabetic diet, sugar control technique, the home safety, betel nuts cessation and smoking cessation. Before and after the training course, the volunteers received a simple test, respectively. We used paired-t test to evaluate the efficacy of our training program.

#### Reculte

We enrolled 67 local volunteers from the target communities in 2013. The mean age of 67 volunteers was 60.4 years old. The mean score of pretest was 80.8 (standard deviation: ±21.9), and that of posttest was 98.7(standard deviation: ±5.44). The mean difference was 17.9. By using pair-t test, the difference after training course showed statistically significant result. (p<0.05)

#### Conclusions

In this program, we invited local volunteers to attend community activities. After this training course, the volunteers learned to care not only their health, but also others in their own community. Through the involvement of volunteers, we can disseminate the correct health knowledge to the population in the community. In the future, we hope that the population can find out the health issue themselves in the community and resolve their health problem by integrating variable resources in the community.

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## Ubiquitous health information for residents and tourists in remote areas in middle Taiwan

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#### Introduction

Through B2B2C model, we make a good cooperation in community and Hospital by way of role model, religion culture, and resources in community. To build a smart and healthy town, we use the information and communication technology to deliver Telecare Services for residents and tourists in Nantou County .



#### Purpose/Methods

Under the financial, religion and social support, we set up telecare stations in community centers, clinics, drug stores and tour spots around the Nantou County. The residents and tourists can go to the spots to measure blood pressure, heart rate, blood glucose, body temperature and body weight. All the signals were sent to the Telecare service center in Chu Shang Show Chwan Hospital by internet. The Telecare manager will provides integrated and professional services back immediately.

#### Results

In Taiwan, the remote area needs Telehealth system more because of lack of and poor accessibility of medical resources. But it did not succeed in the past. Through the Business to Business to Customer model, Chu Shang Show Chwan Hospital proved that telehealth services can successfully operate in the remote areas. For more than 5 years, we note the total utilization count by 21,121, abnormal rate of vital signs data from 43% to 30%, and the user's satisfaction from 79% to 92%.

#### Conclusions

This is the first time to operate Telecare Services successfully in rural communities in Taiwan. We provide medical solutions, not only medical needs, but also teaching people self-health management by the way of complete Telecare services. In addition to the medical services, we expand care services to residents and tourists using i-SHOW network for medical needs, eating, living, entertainment, etc.

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## Importance of continuing the program to measure radiation levels

#### INAGAKI Tadashi, ENVIRONMENT COMMITTEE Tokyo Health CO-OP, NEGISHI Kyota

#### Introduction

On March 11 of 2011, the Great Eastern Japan Earthquake and the accompanying tsunami were the cause of damage to the Fukushima Daiichi Nuclear Power Plant which resulted in the leak of large doses of nuclear radiation thus forcing Japanese residents to live with high levels of radiation for an extended period of time. The myth of "safe nuclear energy" was reexamined and a need for conversion to natural energy was expressed.

#### Purpose/Methods

Radiation level measurements have been announced by official agencies, but it was realized that if residents were to take their own measurements, they could be more directly involved in protecting their communities, and thus the need for such measuring activities was recognized. So that private entities

started a movement for measuring their communities' radiation levels and purchased two devices for this purpose. They began independently taking measurements from November of that year. Currently there are 4 such devices in use.

#### Results

Of the 40 private entity chapters, 33 chapters have organized measuring activities. Comparison of the data for the six wards with participating institutions shows that the areas in the East include a number of sites that show high levels of radiation with more than 1 millisieverts (mSv) per annum, while Nerima ward in the West has low average measurements. Regardless of these activities, several concerns remain such as worries regarding exactly how citizens' health will be affected.

#### Conclusions

Even now the Daiichi power plant is still in a dangerous state - the problem of water contamination has yet to be solved and only recently has the removal of some of the atomic fuel rods begun. It has been made crystal clear that man is unable to fully control nuclear power. Such a possibility is why it is extremely important that citizens must regularly take their own measurements instead of leaving it up to the experts.

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## Promoting health among atomic bomb survivors through the implementation of medical checkups

## WONG Toh Yoon, IIDA Junko, NAKAMURA Shinya, KABUTO Syuu, NISHIHARA Kazuki, MURATA Hirohiko

#### Introduction

Under the Atomic bomb Survivors Medical Care Law established in 1957, certified survivors receive coverage for their health expenses as well as free medical checkups up to four times per year. Numata Clinic, situated in a northern district of Hiroshima City, conducts checkups for about 150 survivors every year. Here, we describe these checkups and outline our main findings.

#### Purpose/Methods

118 atomic bomb survivor/patients (A group) who received medical checkups in our clinic during a four-month period were analyzed and compared with 105 non-survivor/patients (B group) who also received checkups during the same period. Parameters checked included medical history, smoking/drinking status, waistline, body mass index, blood pressure, blood test (complete blood count, lipid profile, liver function, kidney function, glucose levels, HbA1c etc.) and urine test.

#### Results

Age was higher for the A group (77.5 $\pm$ 6.9 vs. 73.7 $\pm$ 8.4 years, p<0.005) but there were no significant differences in physical parameters, smoking/drinking status as well as medical history of hypertension, diabetes, dyslipidemia and cancer. Significantly higher histories of cardiovascular diseases (20.3% vs. 6.7%, p<0.005) and asthma (11.9% vs. 2.9%, p<0.05) were observed in the A group. Hemoglobin levels were slightly lower in the A group (12.6 $\pm$ 1.6 vs. 13.5 $\pm$ 1.5 g/dL, p<0.001). Adjusting for age and gender did not alter the results.

#### **Conclusions**

These results provide further epidemiological evidence of the risks of cardiovascular and non-cancer respiratory diseases among atomic bomb survivors. Unlike previous studies, our findings did not show any alterations in lipid profiles and liver function. Active periodical checkups are needed to monitor and educate survivors, assisting them to improve their well-being.

#### Comments

We will also introduce our active stance in promoting these checkups (which is not compulsory), including making house calls to survivors and performing the checkups at their homes.

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## Session P2.15: Improving patient safety - minimizing falls, hospital-aquired infections, medication and medical errors

Falls Prevention in the elderly in the University - Hospital of Parma: phenomenon's monitoring and health literacy of patients and caregivers

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#### Introduction

The proportion of elderly people is increasing steadily and hence also people at risk of falling will increase over the next years. Approximately, more than 30 per cent of people over 65 years of age living in the nursing home fall each year. Fortunately, less than 10 per cent of falls produces a major injuries, such as hip

fractures. Recent data from the literature showed that only multifactorial interventions can reduce falls, especially in older persons.

#### Purpose/Methods

- Identification of a Multi-Professional working group; - Implementation of an "Incident Reporting System" to detect falls at the University Hospital of Parma ("Falls-Incident Reporting" sheet); - Analysis of factors risk for falling in each Department; - Realization of a simple tool ("How to avoid Falls") for the staff; - Production of posters and brochures addressed to patients/caregivers for improving measures of prevention; - Realization of events addressed to professionals for minimize falls, including diffusion on Hospital Intranet website

#### Results

The majority of patients had "intrinsic" risk factors (age > 65 years, type and number of drugs taken, etc..) for falling. It was also been possible evidentiate that 83% of falls occurred was concentrated in 4 of 11 Departments. These results, compared with the literature, were utilized by the multi-disciplinary workgroup to construct and validate informative tools useful for healthcare professionals, to realize intervention strategies, and for patients/caregivers for improving prevention strategies and minimize falls

#### Conclusions

The Hospital Reporting System of Falls was transposed and used by professionals. The structured training with interactive mode and in small groups, with analysis of real cases submitted by participants, allowed to actively involve professionals belonging to the departments most involved. The satisfaction for the initiative, that has been deemed "relevant and useful" by the professionals, has led the Working Group to schedule additional training sessions for 2014.

#### Comments

The project, carried out through internal resources of University Hospital of Parma, was positively recognized by the professionals (there are many reports of falls without injury in demonstration of the professionals' commitment to monitor the phenomenon). This experience was presented at a regional level and contributed to the development of regional and Hospital "best practices" (AGENAS 2012; FIASO, 2013).

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Reduce the Fall Rate in Neurology and Neurosurgery Wards by Mutistrategies

#### **CHENG Shun-Yi**

Introduction



Our unit is the ward of Neurology and Neurosurgery Department. The fall rate in the wards was 0.15% in 2011, the highest of the hospital, among which there was a case causing serious injury. According analysis, the most common reasons of inpatients fall are lacking of muscle endurance and cognitive deficits of the patient and families, And nurses using inappropriate aids to care guidance that seriously affecting the medical quality.

#### Purpose/Methods

Purpose: Apply Muti-strategies to reduce Fall Rate in Neurology and Neurosurgery Wards. Methods: This program intervened multi-strategies including providing:(1) fall prevention nursing education; (2) multi-media interactive teaching; (3) cross-medical team intervention in health education guidance; (4)team health education; (5)health education poster presentation in corridors; (6) establishing the shift system of major career; (7)creating safety belts on wheelchair and (8) applying for safe bathroom aid spurchase.

#### **Results**

This program successful reduction of the fall rate to 0.13% in 2012.

#### Conclusions

The conclusion shows that using multi-strategies can effectively reduce the fall rate of patients and improve the medical quality by introducing fall prevention nursing education and case intervention.

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## The Effect of a Friendly Health Environment on Elderly Inpatient Falls

### FENG Ren-An, WANG Chung-Jing, CHEN Fang-I, CHEN Mei-Tsu

#### Introduction

The rapid aging population in Taiwan, the high possibility for falls in older people, and the increasing rate of fatality have greatly burdened the medical and social expenditure. The main strategy of preventing elders from falling includes fall risk scale, multifactorial interventions, physical therapy treatment, reduction in medications use, environmental modifications and patient instructions. Therefore, we aim to take insight on the effectiveness of fall prevention for the elders more than 65 years old in the friendly health environment.

#### Purpose/Methods

The aim of the retrospective study is to investigate the fall risk of 359 inpatients, aged over 65 years old, in a general acute ward in a regional teaching hospital. The study used descriptive statistics, ANOVA, and logistic regression to analyze the data in order to

understand the possibility for falls and injuries in the inpatients after introducing education and improved environment.

#### Results

The result shows that 59% of the inpatients fell before and 61% (219 inpatients) were injured. However, by improving the entire hospital environment, paving floor with non-slip tiles, installing the emergency system at the bathroom and bedside in the ward and teaching the inpatients health education, the average occurrence of fall is 0.105%, ranging from 0.11% to 0.07%. Therefore, it is the intervention of the friendly environment that significantly improves the fall risk of the elder inpatients.

#### Conclusions

The falls not only brings direct negative effects on the physical activities of the elderly but also imposes on them pressure and fear. Furthermore, It deteriorates life quality and individual's emotion, burdening the medical cost and social and family expenditure. Therefore, the elder inpatients could achieve fall prevention and live in the environment with minimizing chance of being injured when they receive medical treatments in the Friendly Health Environment.

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Chirurgia Amica - Surgical Patient
Friendly Hospital": designing a Paper
to support good clinical practices and
patient-caregiver empowerment
aimed at preventing Surgical Site
Infections (SSI) at Ferrara University
Hospital

ANTONIOLI P.M., MANZALINI M.C., BONATO B., CARLUCCIO E., FRANCHI M., MANISCALCO L., TEODORINI M., CAPONCELLI P., CAVEDAGNA D., CHIARINI M., GREGORIO P., GABUTTI G.

#### Introduction

SSI account for 15-20% of hospital-acquired infections and can lead to local and systemic complications of variable severity. The risk of SSI is related to many factors and all actions aimed at its reduction must consider the complexity of the phenomenon. These general premises and a specific need to improve SSI-related outcome of surgical process are the basis of the Project which aims at reducing SSI through interventions of proven effectiveness and sustainability according to a Multimodal and Multidimensional strategy.

#### Purpose/Methods

Provide a clear, effective and practical support tool to both healthcare professionals and patients-caregivers during all phases of the surgical process. The paper was produced after consulting various literature sources, supplemented with suggestions emerged during meetings with our workforce, home care providers and Patient Associations, according to Health Literacy standard. The paper includes the following attachments (folders and forms) for patients-caregivers and workforce: Patient preparation, Information about SSI surveillance, SSI surveillance form, Surgical wound monitoring form, Surgical drain home management.

#### Results

The Paper consists of nine tabs about the issues highlighted by path analysis: patient preparation, both at the hospital (Pre-Surgery Shower, Cutaneous Antisepsis, pre-surgery hair removal) and at home or other care facility; intra and postoperative phase (reconditioning of the operating theatre, periodic environmental disinfection, wound dressing and monitoring using a simplified 'asepsis score', surgical drain management). Training courses aimed at our workforce have been set up along with process and outcome indicators including an active system for SSI monitoring.

#### Conclusions

The use of an integrated paper, addressing to both healthcare professionals and patients-caregivers, seeking their active and conscious participation, structured in accordance with both WHO multimodal approach (system changes, training and education, evaluation and feedback, reminders, institutional safety climate) and our multidimensional approach to healthcare (three main areas: hand hygiene, healthcare environment hygiene, best clinical practices), appears as a useful and appreciated tool to ensure highest possible quality, safety and consistency of healthcare, particularly aimed at reducing preventable SSI.

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A multifaceted approach to assess and contain healthcare-associated infections in intensive care units

CAMPAGNA Marcello, LAI Alberto, PIAZZA Maria Francesca, GALLETTA Maura, MARRAS Valentina, SIDDU Andrea, MUSU Mario, MASSIDDA Valeria, COPPOLA Rosa Cristina

#### Introduction

Healthcare-associated infections (HAI) are an important issue for intensive care units (ICUs). Currently, it is increasing the need to

manage the problem by multifaceted approaches that focus on promoting both effectiveness preventive interventions and quality of staff's work conditions, which in turn contribute to develop a team able to offer effective care to patients. Healthy workplaces may increase employees' well-being by decreasing the likelihood of stress-related syndromes such as burnout and improve the quality of care

#### Purpose/Methods

The study was conducted in a University-hospital ICU. Acquired infections were assessed, as well as the adherence to those preventive measures that scientific evidence indicate as effective in containing the HAI with 25 hours of direct observation and 923 items considering hand hygiene, standard and isolation precautions, intravascular and urinary catheter-related infection, invasive procedures-related pneumonia. Staff's organizational well-being was assessed by a structured questionnaire administered including psychosocial aspects such as communication, structural empowerment, workload, job control, and job burnout.

#### Results

We founded 16.9 infections/patient-days in 6 month. We checked the availability of 107 protocols, procedures and guidelines as structure and process indicators (55% available). Direct observations in all areas considered include a drastic variability in adherence to evidence-based preventive measures (25-100%). Moreover, we found that the most part of the participants (N=35) had lower-middle levels of burnout for exhaustion (89%), cynicism (74%), and inefficacy (77%). Also, burnout was significantly correlated to workload, communication, job control, and resources (p < .05).

#### Conclusions

This study tried to provide a multidisciplinary and multifaceted contribute to assess the conditions implicated in the spread of infection in ICUs, with attention to health operators' organizational well-being that is suggested as directly related to quality of care. The findings can offer practical suggestions for improving good clinical practice and promote healthy workplaces in order to reduce the HAI risk and increase psychosocial and organizational well-being. Project carried out in collaboration with the Italian "Ministero della Salute – CCM"

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TEAM PICC - Team peripherally inserted central catheter -

MALASPINA Riccardo, GERMINIASI Paolo, CIMOLINO Gaia, BORIANI Monica, STORTI Piervincenzo, TIRON Camelia Gaby

Introduction



Background The venous catheter insertion device, such as peripherally inserted central catheter (PICC) and Midline, offer a valid solution to the problem of catheter-related infections . Using these catheters has significantly reduced the percentages of infections, as demonstrated by numerous studies

#### Purpose/Methods

Aims 🛚 drafting and review protocols for the management of the patient bearer of PICC catheter 

? appropriate selection of patients to be included in the Protocol for PICC catheter placement. 2 proper use of PICC catheter because it reaches the reduction of infections and pneumatological improving professionals' skills in our complications 2 hospitals printing brochure to be delivered to hospitalized patients I nurses put in a position to place PICC catheter with ultrasound guidance, prior university education and practical training, so to be able to place and manage the catheter PICC without anesthetist 12 reduction of costs related to complications that the positioning of the catheter without ultrasound guidance implies, so reduction in health care spending 2 home independently by the patient (family), no nursing home care Workpage 1. verify the clinical indications for potential patients to PICC catheter placement 2. training courses for nurses, for the establishment of a team PICC that can be immediately working in the hospital and to lead towards colleagues 3. identification the experimental areas where, for about 8 months, check the knowledge and implementation of the "PICC project" through pilot audit. 4. Sharing specific clinical protocols and document the evidence found 5. distribution of brochures to users

#### Results

Objectives actually pursued 2 implementation of the method as determined by the project: the modalities project's implementation, as well as the operators involved. 🛚 🗈 implementation of a PICC-Team that allows to perform the selection and acquisition of the device suitable for each patient 2 education for nurses, PICC team for the approach to the method and device management in outpatient 2 reduction of costs related to complications that are avoided by placing the PICC catheter with ultrasound guidance 2 patient self-care and family services without territorial nursing 2 processing information leaflet for users Results to date 1st half of 2012 2 authorization level of training of the personnel involved 2 identification of the experimental areas: Oncology Department and Pain Therapy Unit From June 1st, 2013 The PICC Team is active throughout the Poma Hospital; The Unit of Pain Therapy has the main role of coordinator of the PICC Team Project Monitoring as follows: 2 Year 2012, PICC catheters we were positioned 60 and another 86 in 2013 2 Team has been properly prepared and it is composed of 2 anesthetists and 2 nurses (belonging to the oncology and pain therapy departments)

#### Conclusions

Concluding remarks To date, the project is implemented throughout the hospital and is properly run-in Our practice is the follow-up of patients treated through periodic check-ups to ascertain the true incidence of late complications and relapse functional on patients, as well as the long-term adherence to the instructions given during treatment We note the complete absence of pneumothorax complication type, which is frequently

found in at least 10-12% of patients with implant placed without ultrasound guidance  $% \left( 1\right) =\left( 1\right) \left( 1\right) \left($ 

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## The application of PRECEDE Model improved the handwashing compliance in a nursing home

### ZHEN Qiu-Cheng Jane, CHU Chiao-Lee, LIU Yifang, KU Chu-Mei

#### Introduction

The hospitalized infection rate was 70% during a nursing home during July 2013. The handwashing compliance rate was found only 36.5% in the health care staff. So we would used the PRECEDE Model to enahce the handwashing compliance in the nursing home.

#### Purpose/Methods

Using the check list of PRECEDE Model, we were checking their timing and accuracy of washing hand during the nursing care without noticed to them.. Each time we spends about 60 minutes to wach their various hanwashing activities, this included education and assessmen of the check list.

#### Results

The handwashing education was carried about 30 minurts in the first and second intervention survey. We would arrranged the cognitive test after these 2 courses. Totally there were 16 staffs under our assessment. The score of cognitive test increased from 53.8 to 80.2; and the handwashing compliance rate raised from 36.5% to 80%

#### Conclusions

Our result shown the application of PRECEDE Model was good enough to upgrade the handwasing compliance and increased the cognition of the staffs. We found the staffs had correct handwashing behavior after this intervention.

#### Comments

In 2004, Won shoen the muti-model intervention would promote the handwashing compliance. Our results proved the observation of hand wasshing compliance obviousli ws improved after the intervention in the nursing home practice.

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## Analysis of The Risk Factors at The Development of Arterio-Venous Shunt Infection: A 6-Year Experience in A Southern Hospital

### CHUNG Pei- Lin, CHANG Chien-Hwa, TSAI Jen-Pi, LIN Ming-Nan

#### Introduction

Arteriovenous shunt infection is a major morbidity of chronic maintenance hemodialysis (HD) patients. This study was conducted to determine the risk factors at the development of shunt infection.

#### Purpose/Methods

From 2007 April to 2013 August, there were 1048 patients received shunt creation, which included arteriovenous fistula (AVF), arteriovenous graft (AVG) and arteriovenous fistula transposition (AVFT), and had regular follow up at our hospital. Shunt infection was defined by clinical impressions and wound/blood culture reports.

#### Results

During this period, 54 HD patients (5.13 %) were diagnosed to have shunt infection (2 AVF, 49 AVG, 3 AVFT). The pathogens were gram positive 68% (39/57), gram negative 12.3% (7/57), no growth 14% (8/57) and not known 5.3% (3/57). Patients who had shunt infection were older (69.21  $\pm$  10.5 vs. 65.47  $\pm$  12.98, p = 0.015) and used more AVG (90.7% vs. 50.3%, p < 0.001) than normal shunts. The possibility of shunt infection was highest of AVG, second of AVFT and lowest of AVF by Kaplan-Meier survival analysis (p < 0.001). Being older (HR = 1.024, 95% C.I. = 1.001-1.047, p = 0.04) and using AVG (HR = 19.9, 95% C.I. = 4.872-81.25, p < 0.001), AVFT (HR = 6.323, 95% C.I. = 1.066-37.5, p = 0.043) were at significantly higher possibility of developing shunt infection. Patient who had the history of liver cirrhosis had nearly significant higher possibility of developing shunt infection (HR = 2.742, 95% C.I. = 0.995-7.554, p = 0.052). After adjusted by stepwise multivariate Cox proportional hazards regression analysis, using AVG (aHR = 20.04, 95% C.I. = 4.906-81.82, p < 0.001), AVFT (aHR = 6.293, 95% C.I. = 1.061-37.32, p = 0.044), and having liver cirrhosis (aHR = 2.918, 95% C.I. = 1.059-8.041, p = 0.039) were independent risks factor for shunt infection.

#### Conclusions

For maintenance HD patients, receiving shunt creation with AVG or AVFT and having liver cirrhosis were independent predictors for further possibility of shunt infection.

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Intervention to reduce the respiratory tract infection Events in psychiatric wards

#### LAN Jou-Huei, HUANG Hsin-Shu, WANG Tso-Jen, SHEN Shu- Hua, LIN Mun-Ju, CHEN Yu-Hung

#### Introduction

From July to September 2010, there were 4 events occurring outbreaks of respiratory tract infection at a psychiatric hospital in southern Taiwan. The discussion and analysis of the main factors for the infection outbreaks were:1) staffs' shortage of alertness; 2) delayed informing; 3) unable to perform prompt isolation, environmental disinfection and other infection control measures.

#### Purpose/Methods

To improve quality of care, reduce infection rate, and ensure patient's safety, with proper infection control grading and resource allocation. After the discussion and analysis , we set grading with proper resource allocation by color light red, yellow, and green. Red light means cluster unit, yellow light indicates the cluster with no new case during an incubation period, and the green light refers to sporadic cases.

#### Results

There were 18 events graded red light in wards in 2011. After proper infection control grading and resource allocation, the events of respiratory tract infection was reduced to 7 events in 2012, and 2 events in 2013 until November.

#### Conclusions

The infection control interventions effectively reduced the respiratory tract infection events gradually. The reasons why the infection rate reduced gradually could be: 1) every head nurse on duty monitors the infection events among wards, try to control it asap; 2) staffs in the wards had increased comprehension about infection control measures, which indirectly reduce massive infection; 3) once events occur, the isolation spaces are set, the patients are separated and cared at different zones, and the environment is disinfected.

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The improvement project for increasing nurse's accurate caring to Ventilator -Associated Pneumonia in the Southern of Taiwan

LEE Ying-Hui



#### Introduction

Cognition of and attitudes toward infection control amongst Intensive care unit nurses have been shown to be inappropriate and insufficient. Improper care of Ventilator -Associated Pneumonia (VAP) threatens patient safety.

#### Purpose/Methods

Raise the rate at which care of Ventilator- Associated Pneumonia (VAP) measures are properly executed in order to provide safe, high quality working environment for nursing staff and to establish a Security hospital environment. Strategies including holding continuing education and set up standard operation procedures for VAP care guidelines and periodic in section system.

#### Results

Correct execution of hand washing measures rose from 60% to 100%; cognition increased from 70 to 100 (on a scale of 0 to 100).

#### Conclusions

Enhancement of prevention VAP cognition through in-servicetraining course and the provision of appropriate protection facilities can raise infection control abilities amongst medical staff.

#### Comments

We strongly recommend that a course on infection control program be included in the continuing nursing education curriculum for ICU staff.

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## The burn center-propelled project on central line bundle

#### TSENG Chiung-Ying, CHEN Shu-Ling, SU Ying-Ching, HUANG Kuo-Feng, LIN Yu-San, CHEN Mei-Li

#### Introduction

The rates of central line-associated blood stream infection in Taiwan's health units were higher than those in Europe's and America's. The burn center of the remarked units had the highest rate. The author's affiliation adapted to the quality of the central line bundle motivated by Taiwan Centers for Disease Control and propelled the bundle clinically to contract the medical expenses and cared for patients.

#### Purpose/Methods

The project aimed at: amending the rates of health care compliance; controlling those of central line-associated blood stream infection. The amendment was by supplying: education;

training; standard operating procedures; audits; equipments. Thus, the central line bundle compliance and completion rates were advanced.

#### Results

The rates of the central line placement procedure compliance were from 52.13% to 94.44%; those of the central line bundle completion daily, from 74.28% to 100%. The infection rates were from 8.23% to 1.38%. The bed occupancy rates at our burn center and the amount of our cases concerning enacting the central line bundle were unstable, so the effect of the bundle should be long-term observed and statistically analyzed.

#### Conclusions

The effect of the central line bundle on controlling infections worked better than that of the single interventions, and was worth being actively impelled.

#### Comments

Consequently, to raise the compliance rates, commencing basic education, and incorporating hand hygiene training into medical personnel orientation, and comprising central line placement procedures into doctor clinical skills tests are recommended.

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## Promotion the efficacy of precise hand washing in foreign home-caregivers

#### WEI Hui-Chih, HO Hsuan, HOU Chun-mei

#### Introduction

Hand washing is the single most effective way to prevent the spread of infection. However, the quality health care was incoherent in foreign home-caregivers.

#### Purpose/Methods

The aim of our study was to promote the correct rate of hand washing in foreign home-caregivers through educational training. The Yang-Ming Home Care Institute enrolled a total of 88 foreign home-caregivers from 2012 to 2013. Hand hygiene educational training information was translated in 2 languages (Indonesia, Vietnam). The foreign home-caregivers practiced hand-washing procedure according to the guideline of "5 moments for hand hygiene (WHO)" and were monitored before and after intervention by home care nurses.

#### Results

Our home care nurses directed a total of 88 foreign home-caregivers by hand washing education. The correct rate of hand washing was 83.25% at initial and became 88.40% after intervention. The incidence rate of respiratory tract and urinary

tract infection in home care subjects was 2.05%, 2.31% at initial and dropped to 1.95% and 1.15% at final.

#### Conclusions

The precise hand washing in foreign home-caregivers not only reduced the incidence rate of infection but also promoted the health care quality in home care subjects.

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The effectiveness of reducing ventilator associated pneumonia infection in a regional hospital with imported VAP Bundle care experience

#### YEN Chen-Yu, CHEN Hui-Chen

#### Introduction

Ventilator-associated pneumonia infections are common in ICU patients with nosocomial infection and result in infection, mortality, length of hospital stay and medical expenses. Therefore, the project aimed to investigate The effectiveness of reducing ventilator associated pneumonia infection with imported VAP Bundle care.

#### Purpose/Methods

By EBM recommendations that VAP bundle care includes the following measures:1) implementation of hand hygiene; 2) head-of-bed elevation above 30-45 degrees; 3) oral care every day; 4) daily checks of endotracheal cuff pressure; 5) awaked sedation patients assessed the possibility of extubation; 6) regular assessment and care of ventilator circuit; 7) and daily readiness-to-wean assessments from the ventilator.

#### Results

Ventilator usage within six months declined by 3.3%. after the implementation of VAP bundle care. Furthermore, occurrence of ventilator-associated pneumonia infections zero cases was achieved from July 2013 to November 2013. Our experience has shown that the implementation of VAP bundle care can be effective in reducing the incidence of VAP.

#### Conclusions

Even though our experience period not long, we still continue to promote the VAP bundle for the efforts to improve the quality of care.

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St. Joseph's Hospital Sinsheng Rd., Huwei Township, Yunlin County, TWN aicu@mail.stjoho.org.tw Clinical experience of government, independent information and research for improvement in the field of prescription appropriateness

### BICEGO Livia, PALCIC Stefano, PETTINELLI Aba, MAGGIORE Adele

#### Introduction

Since several years local public Health Service n . 1 " Triestina " ( ASS1 - Company no territorial hospitals - 240,000 residents) is conducting an experience to improve the appropriateness of using drugs, their prescription and relative costs. Since 2006 it has started an integrated course of multi-professional and multisector activities, including independent information on medicines, dissemination of reports to prescribers, audit and feedback, communication to citizens.

#### Purpose/Methods

It was realized a new magazine about drugs entitled "So you like it" (to date 27 numbers). Based on literature analysis and issues raised in meetings with local opinion leaders, it provides critical synthesis independent of information supplied by pharmaceutical companies on major therapy areas (cardiovascular, diabetes, CNS, COPD), comments relating to AIFA - Ministry decision, suggestions and recommendations. Periodic informational meetings were held with prescribers and population in order to optimize the resource drug and discourage its consumistic use.

#### Results

Feedbacks from magazine readers are steadily increased (from 100 to over 500 by number). This bullettin is also used by other Health Institutions and it was presented to Istituto Superiore di Sanità. Since 2006, 21 meetings with population and 80 with healthcare staff were held. Interventions have included:correct prescription of cardiovascular drugs,especially statins (10% improvement in patient compliance), optimization of anticholinesterase drugs prescriptions (re-evaluation of all patients to verify efficacy case-by-case), reduction (-25%) of associations between two atypical antipsychotic drugs.

#### Conclusions

Some observed changes are more effective in our Health Service than in others of Region Friuli Venezia Giulia(FVG), with a positive effect also in pharmaceutical expenditure. The latter has been declining steadily since 2007 and we record a decrease in average cost per prescription higher than that of our Region. This paper aims to underline the importance of undertaking multidisciplinary and participatory mechanisms, aimed at raising awareness, motivation, quality of governance instruments in territorial and hospital healthcare workers, without neglecting the importance of communication to general public.

#### Comments

Through the collaborative and comprehensive review of individual patients, we obtained an improvement in appropriateness of prescribing in various therapeutic categories,



enhancing the ability to ensure the efficient use of the allocated resources (available) and realizing performance more effective. In this way it's possible to answer the question of health and it's possible to contribute to improvement of equity, ethics and sustainability as part of the National Health Service.

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The Study of Enhance Medication Near Miss of Online Reporting is to improve the Medication safety of patients in a Medical Center MICU.

#### **CHEN Ching-Yi**

#### Introduction

Medication safety of patients is the most important mission of Physicians and Nurses. The nurses often due to order error and do not really check the correction of this order, resulting in the medication safety is failed. Because nurses lack the knowledge of medication near miss and reporting system that will affect the behavior of online reporting. This study is discussed the necessity to enhance the exception of medication near miss reporting to improve patient's medication safety.

#### Purpose/Methods

In this study through a series education of medication near miss knowledge and to encourage nurses online reporting and simplify computer reporting system to improve nurses really check the correction of orders. In order to avoid the order error caused nurses medication error.

#### Results

After taking remedial activities, the nurses all can be performed to check the correction of doctor orders. When the nurses find out the order error, they will response to the doctors for correction in time. The number of online reporting from the past 0 increased to 20-25 pieces and medication error from 4-6 down to 0-1 pieces per month. The results showed that medication error is significant improved.

#### Conclusions

Enhance nurse's medication near miss reporting that can reduce the occurrence of medication error. Through the study project to improve the effectiveness of the medication near miss reporting has been extended to other ICUs. Improve the implementation of patient medication safety, and recommended the hospital Physician sector can improve the accuracy of order, to achieve the goal of patient medication safety.

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## Providing effective patient education, and improve patient's medicine using accuracy

#### CHEN Kuan-Yueh, WANG Huei-Yi, TU Shih-Te

#### Introduction

The age of CCH's patients above 60 are about 46%. There are many elders can read and live along. For make sure that they can take the medicine correctly, we hope that through the effective patient education to improve the patient's medicine using accuracy.

#### Purpose/Methods

We make the patients who can't read and don't know how to take the medicine to the education room. The pharmacist will use the education tool, such like sun means daytime, moon means night, a circle means take the tablet once a day, and three circles means take the tablets three times a day... etc. We put the notifications on the prescription bags and teach the patients how the recognize them. Finally, we make the patients tell the prescription to make sure that they know how to take.

#### Results

In 2013, the educated patients are 470 people per month. Most of them are elders and they can't read or have presbyopia. These services can make them take the medicine easier. In the education, we find that part of elders can't read, so make them take the wrong dose or wrong time, moreover, the poor compliance.

#### Conclusions

Through the effective education, we can make sure that patients take the medicine correctly. Besides, we enhance public awareness of the right medicine uses, not buying medicine through unclear place, not recommending the medicine to anyone...etc. to establish the concept that patient "see the doctors when you sick, ask pharmacist when you take medicine"

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Using Project Management to Help Raise Performance and Quality of a Drug Management System - Taking

## One Regional Teaching Hospital in Southern Taiwan as an Example

### CHIEN Shu-Chiao, LAI Feng-Lan, CHEN Fang-I, CHEN Mei-Tsu

#### Introduction

Healthcare needs a more continuous improvement process to control costs and achieve excellent service quality, so medical supplies and drugs are very important and closely integrated with the life of the patient. It is the healthcare industry's essential social responsibility to use information technology and apply the skills of information management to prevent counterfeit drugs from entering the hospital, increase drug storage performance and reduce operating cost.

#### Purpose/Methods

Research tool is "Follow-Up Study" to investigate a single case. Object of study is the drug storage of using bar-code management system in one regional teaching hospital. It is also improving pharmaceutical supply chain's process of purchasing, sale, and stock by project management. This model can be an example for others medical institute to improve their working process, increasing the whole working process smoother and more efficient. "Technology Acceptance Model" is used to explain the staff's acceptance of bar-code management system.

#### Results

The result shows that staff implements bar-code management system to work. And it can manage stock of materials and make cost down effectively. It also can reduce the time of shipment 20%, save the time of human labor ≧50% with PDA, and control the state of expiring materials precisely. In the "Technology Acceptance Model", the both of the perceived usefulness and perceived ease of use have a marked effect. Therefore, the result can let us more understand the current situation of pharmaceutical supply chain in Taiwan, and can be an example for follow-up basic research and practice.

#### Conclusions

Project management has a rapid growth in the management area. So we use it to raise and improve pharmaceutical supply chain's performance, more effectively controlling the key process of drugs 's expiry date, flows and quality to reduce the information is differ from account and materials, increasing medical efficiency and drug safety, making internal controlling process completely to be a health promoting hospital to protect community's bodies, mind, and spirit.

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Factors associated with the use of complementary medicine in

### emergency department physicians in Taiwan

#### HSU Tien-Kuei, KOO Malcolm, YEH Yueh-Chiao

#### Introduction

Previous studies indicated that complementary medicine was viewed with a positive attitude by physicians in European and North American regions. However, few studies have reported the factors associated with the use of complementary medicine in emergency department physicians in Taiwan.

#### Purpose/Methods

This study aimed to investigate the use of complementary medicine among emergency department physicians who attended the 2011 annual meeting of the Taiwan Society of Emergency Medicine. A cross-sectional survey study design was used. Information on participants' basic characteristics, lifestyle, perceived health status, and use of complementary medicine was ascertained by questionnaires.

#### Results

Of the 198 participants (mean age 41.4 years), 90.4% were males and 77.8% had used complementary medicine in the past month. Multivariate logistic regression analysis revealed that shift work, living with child(ren), and use of energy drinks were significant and independent factors associated with the use of complementary medicine. Listening to music (50.8%), massage (36.7%) and consumption of health foods (29.6%) were the top three complementary medicine modalities used by emergency department physicians.

#### Conclusions

Complementary medicine, in particular, listening to music, massage, and consumption of health foods, was well accepted by emergency department physicians in Taiwan. Future studies can evaluate whether providing music in the working areas or providing massage facilities in resting areas are able to reduce the stress levels of emergency department physicians.

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Safety Medication for Community Elder people – the example of Shin-Shing District in Kaohsiung, Taiwan.

LIAO Ling-Ling, TSENG Li-Mei, CHENG Huai-Wei, YANG Yi-Hua, LIOU Wen-Chin

Introduction



The fast growing older population of the Shin-Shing District population has made it an official ageing society. Because most of the elders live with more than two chronic conditions and take multiple medicines at the same time, the senior medication use safety has become a fairly important issue. This problem is shown especially serious in Taiwan. Our program aims to build a safe medication environment for the seniors through the joint effort of our medical professionals and the local clinics.

#### Purpose/Methods

The objective of our program is to implement a conceptual and behavioral change on the elders about medication safety. We will hold forums on senior medication safety and provide personal health consulting service. We will provide professional speakers from our hospital with the local government taking care of the venue and propaganda of the events. The event volunteers will invite the local seniors and give out useful tools like pill boxes and medication memos to better assist senior medication use.

#### Results

1. 6 senior medication safety enlightenments, 2 of which were held with the county fair and provided 267 elders with personal medication consulting. 2. Sent out 288 questionnaires for the senior medication use survey. Collected 269 responses (93.4% response rate), with 265 effective responses (38% male and 62% female). 3. The survey assesses the "5 aspects of medication use." It shows the respondents are highly aware of "the medication direction," but unaware of "making friend with your doctor and pharmacists."

#### **Conclusions**

Through the interaction with the elders in the community, we realized the elders with multiple chronic conditions place extra care on the personal health care. However, lack of communication with the medical professionals along with insufficient knowledge about the medicine often led to medication misuse. Our program provides a chance for the pharmacists in the hospital to work with the pharmacists in local clinics to jointly promote senior medication safety and effectually reduce the potential risk of senior medication misuse.

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## Operative Complications: Clinical Considerations for Surgeons

## LEE Cheng-Yung, CHEN Jin-Cherng, CHIEN Jui-Teng, HO Hsu-Cheuh, HUANG Chieh-Chi

#### Introduction

Operation complications will not only increase medical costs but also threaten medical quality. There also exists potential medical negligence with or without legal problem. For reduction in complications, it is not only cost concerns, but also patient's

safety. The objective of this study was to evaluate the perioperative and postoperative complications and try to provide some opinions for surgeons, and eventually improve patient's safety.

#### Purpose/Methods

We prospectively collected data from July 2011 to October 2013. All patients undergoing operations with general anesthesia were included and those with local anesthesia were excluded. The cases of immediate mortality were also included. Results: There were 20966 operations with general anesthesia. A total of 127 eligible patients had perioperative and postoperative complications which were related to surgical procedures. One had immediate mortality due to massive bleeding. One had ontable CPR due to failed intubation after anesthesia induction. The leading three complications in sequence were wound infection and abscess, hematoma, and active bleeding. Other complications were miscellaneous (e.g. dehiscence, rupture). For plastic surgeons, the most common complications were flap related problems, like cyanosis, failure, and necrosis. For general surgery, most of complication cases were bleeding and hematoma. For orthopedic surgeons, wound infection and abscess and hematoma were quite common.

#### Results

There were 20966 operations with general anesthesia. A total of 127 eligible patients had perioperative and postoperative complications which were related to surgical procedures. One had immediate mortality due to massive bleeding. One had ontable CPR due to failed intubation after anesthesia induction. The leading three complications in sequence were wound infection and abscess, hematoma, and active bleeding. Other complications were miscellaneous (e.g. dehiscence, rupture). For plastic surgeons, the most common complications were flap related problems, like cyanosis, failure, and necrosis. For general surgery, most of complication cases were bleeding and hematoma. For orthopedic surgeons, wound infection and abscess and hematoma were quite common.

#### Conclusions

Based on the results, some suggestions could be provided to surgeons. The most important reason is for patient's safety because nearly all complications of bleeding, hematoma, flap failure required revision operations to avoid catastrophe. The rate of immediate morbidity and mortality is about than 0.01%. Hence, in spite of low rate, it should be necessary to scrutinize patient's pre-op conditions, especially heart and lung functions. The leading complications, bleeding and hematoma, imply that hemostasis should be kept more thoroughly. The infection and abscess are quite common complications and the process of sterilization should be monitored. In addition, postoperative antibiotics might be important issues, especially for orthopedic surgeons.

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## The Causal Model of Nurse's Patient Safety- the Moderating Effect of Standardization

## CHEN Meng-Ling, CHIU Kuo-chuan, KAO Mu-jung, LIU Hsiang-Te, YANG Winnie, WEI Hui-chih

#### Introduction

In Taiwan, the issue of patient safety has been noticed and concerned for many years. Nurses are the frontline workers for patient safety and the antecedents of their safety perception are deserved to be studied for nurse management. This study tries to find out whether nurse's self-efficacy, manpower allocation and team cooperation perception really affect their patient safety perception. On the other hand, we still try to identify the moderating effect of standardization on the relationship between self-efficacy and patient safety perception

#### Purpose/Methods

If the relationships between nurse's self-efficacy, manpower allocation, team cooperation and patient safety perception are confirmed. It will has significant theoretical and practical implications on nurse management in hospitals. Besides, the moderating effect of standardization on the relationship between self-efficacy and patient safety perception is also important for hospital management today. This study collected 652 samples from Taipei City Hospital in Taiwan and used confirmatory factor analysis and hierarchical regression to justify the hypotheses we explored.

#### Results

Questionnaire reliability of  $\alpha$  value ranges from 0.90 to 0.95 which are considered reliable. The CR values of latent variables are all between 0.94-0.99 and AVE values are from 0.69 to 0.94. They revealed good internal consistency, discrimination and convergent validity in this study. The  $\Phi$  correlation coefficient of the latent construct shows that patient safety is positively correlated with self-efficacy, standardization and teamwork. In addition, self-efficacy is also positively correlated with manpower allocation, standardization and teamwork. Hierarchical regression analysis confirmed four hypotheses. Besides, standardization moderates the relationship between self-efficacy and patient safety.

#### Conclusions

The results show that nurse's self-efficacy, manpower allocation and team cooperation positively affect patient safety perception; on the other side, standardization moderates the relationship between self-efficacy and patient safety. It is important to increase nurse's self-efficacy perception by hospital's human resource development program, then the nurse's patient safety perception might increase. This study also found that if nurse's manpower allocation and team cooperation perception is not good enough, their patient safety perception will also decrease. Finally, safety self-efficacy is positively associated with patient safety when standardization is low rather than high.

#### Comments

Healthcare managers can count on standardization to assure patient safety while they operate in complicated healthcare settings. But they must remember that standardization is not always possible or desirable, especially in situations where require individuals to improvise. Nurse's safety self-efficacy may serve as a "substitute-for-standardization" which can promote staff behaviors that increase patient safety. Proper manpower allocation and team cooperation also play an important role on nurse's patient safety perception.

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#### Simplify Nursing Records and Enhance Environment-friendly f Nurses

### LIU Yifang, CHUANG Shuting, FU Zixuan, CHANG Hsiaochien

#### Introduction

Most of the hospitals in Taiwan, nurses must complete handwritten record after measurement of patient's vital signs. Handwritten records not only caused the workload of nursing staff, team worker communication difficulties, and are more likely to jeopardize patient safety. Recording is the most spent hours work for nurses. How to simplify the nursing records, and enhance communication of team members and patient safety. This is a challenge to enhance nursing practice environment-friendly in Taiwan.

#### Purpose/Methods

The purpose of this study was to develop and evaluate the effects of Vital Signs Automatically Upload System (VSAUS). This study was a quantitative research. A total of 197 participants were enrolled in this study. We combined electronic information specialists and medical team members to design a Vital Signs Automatically Upload System (VSAUS). Differences between the handwriting records are compared with VSAUS in spending time, satisfaction and recording error rate.

#### Results

The results of this study were as follows: (1) After using VSAUS, spend time of recording decreased from 33.6 min/day to 1.2 min/day. (2) The recording error rate decreased from 19.6% to 2.0%. (3) The satisfaction of nurses for (VSAUS) up 85.4%. The highest average satisfaction score is the ease of operation (90%). From the above finding we confirm its value in simplifying record for nurses.

#### Conclusions

The findings of this study can provide information of Vital Signs Automatically Upload System (VSAUS) for hospital administrators. Our results suggest that the Vital Signs Automatically Upload System (VSAUS) could be used to enhance nurse's confidence and



simplify the nursing records, and thus enhance patient safety. Although the Vital Signs Automatically Upload System (VSAUS) has not been widely used in Taiwan, but the positive results of this study is worthwhile as a reference.

#### Comments

We are pioneers in the use of electronic products to reduce the workload of nurses for vital signs record in Taiwan. Change the record mode also makes the mode of operation of medical team members must be changed. But it will be able to offer more friendly, more safety practice Environment. We believe that the finding of this study will be worthwhile as a reference.

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#### Better Understand Better Care: Enhance health literacy of patient through patient safety promotion activities

#### LEE Hsin-Hua, HSU Wan-Ling, FENG Wen-Jui

#### Introduction

Effective and proper communication would be helpful in enhancing people's health literacy and understanding of health promotion issues. Evidences show that health education is directed towards improving health literacy, the higher health literacy level the better understanding of health promotion issues. By holding patient safety promotion activities annually, that will encourage people involved patient safety issues and to improve people's access to health information. This study aimed to explore the relationship between health education and the outcome of patient's health.

#### Purpose/Methods

Ministry of Health and Welfare's regulation to held patient safety promotion activities every year, the issues are including handhygiene education, reduce the risk of patient falls, and patient identify. To ensure the health education is efficiently, the patient were the survey subjects. This study employs a structured questionnaire to collect data, which is composed the understanding of patient's recognition.

#### Results

From 2010 to 2013, there are average annual about 300 people to attend the patient safety promotion activities. The patient's recognition study result showed that the understanding of patient safety issues is improved (from80.6 to 84.6). Therefore, people' understanding of patient safety issues would be further if the health literacy level is improved.

#### Conclusions

By holding patient safety promotion activities, the hospital in Kaohsiung improved people's access to health information and their capacity to use it effectively. It's also create a healthy environment to promote and encourage patients and their families to participate in patient safety issue, and to develop a good relationship between patient and doctor.

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# Session P2.16: Creating environment-friendly hospitals: Reducing resource consumption and improving waste management

Preliminary Experience in Multiple Green Health Hospital Construction

#### YANG Li-Hui, CHEN Ming-Jyh, LIU Yi-Chu, HUNG Hsiu-Huei

#### Introduction

Social responsibility is the key to sustainable organization development. Under the ground of Green Health Hospital Declaration signed by our superintendent, we have launched comprehensive energy conservation management in medical services, the community, and the staffs' life. To execute environment-friendly promotion with robust strategies, we build up low-carbon medical system and community with smart green public construction promotion as well as intensifying energy conservation education and communication.

#### Purpose/Methods

With the support of the board and the superintendent, we construct an energy management team, commencing with environment-friendly system, management, and education. Leading in International Green Building Evaluation, Leadership in Energy and Environmental Design (LEED), and ISO 50001 energy management system, we have ameliorated energy performance and energy efficiency and continuing.

#### Results

In the year of 2013, we have achieved multiple goals. 10 % reduction of water, natural gas, diesel fuel, and electricity consumption, along with waste reduction, compared with the previous year. Awarded with Taichung City Green Restaurant, we choose carefully for local material and layout carbon footprints. Lowering environmental hazards by following green building specifications with construction site, design programme, and daily operation, with our newest hospital site construction.

CMUH are certified Golden Class EEWH by ministry of the Interior, and going for LEED international certification in 2014.

#### Conclusions

To build a green medical system with "high efficacy, high value, low carbon, low reliance", energy stewardship, economic prosperity, and social responsibility are our principles when it comes to formulation of energy conservation management strategies, converting limited sources to efficient usage, developing green energy, and continuing with sustainable energy.

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#### Energy efficiency measures into the University Hospital of Parma

## SACCANI Andrea, PUZZI Lorenzo, VITALI Pietro, MONTALI Francesca, SIRCANA Luca, CAMPANIELLO Giovanna

#### Introduction

The University Hospital of Parma is a complex Hospital, structured in pavilions, with a large block where most of the highly energy-intensive activities are concentrated. The energy consumption is of 5,038 TOE of thermal energy and 7628 TOE of electricity, for a total of 12.666 TOE, with emissions of about 27,800 tCO2 (year 2012). From the aqueduct has been consumed an amount of nearly 500,000 cubic meters of water.

#### Purpose/Methods

In Health Service there's an increasing in need of energy with: - The evolution of the concept of Hospital (eg. historically the hospital rooms had with 6-8 beds, now house a maximum of 2 beds); - Regulations which provide conditioning air for nearly all of the environments, where they didn't were before - The new health technologies increasingly energy-hungry. Despite that, there's an evident necessity to consider and contain energetic consumes in Hospital.

#### Results

The analysis of consumption and plants has led to the possibility of making some energetic rationalization interventions, like: - the installation of LED streetlights on hospital central internal street; - the installation of solar panels on some new or refurbished pavilions; - running a cogeneration plant of 9.750 KW overall power; - performance of a well to feed the cooling towers; - construction of a new mini pavilion in A energetic class.

#### Conclusions

The sum of the proposed interventions, some realized and others under realisation: - saves the purchase of 1,900 TOE of primary energy; - allows to avoid the emission of 4,450 tCO2; - ensures an annual expenditure lower of € 1.200.000,00 of which part may be reinvested for further efficiency measures.

#### Comments

Interventions on ignitions in the common areas have been carried out, all paid off by the lower cost of electricity in less than a year. Inverter's installations, for air handling units and for the elevators that have none, have been planned.

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## Study of Effective Energy Conservation in Taiwan Regional Hospital

#### OU Chin-Cheng, LEE Wen-Diing, JU Reng-Sheng, LEE Sin-Ruei, SHEN Te-Tsun

#### Introduction

Hospital is the propery with higher energy consumption from most results of studies; in addition, the world faces the shortage of energy and climate problem of greenhouse effect. In fact, the hospital needs to do the following main issues: how to use the energy with higher effectivity, how to reduce the carbon emissions, and how to make a confortable environment.

#### Purpose/Methods

1. We will have the conferences and activities of energy conservation and carbon reduction for hospital employees and community peoople to response the higher effective energy conservation, reducing carbon emissions in order to let whole population to participate activities of energy conservation. 2. The year hospital energy emission is controlled under 180 EUI because of the effective energy conservation and management.

#### Results

Based on the data fromTaiwan Green Productivity Fundation, it showed the year regional hospital energy emission in Taiwan is about 239.8 EUI from 2008 to 2012. However, E-Da hospital, the regional hospital, is 165 EUI. It means the E-Da hospital had the best effectivity of energy conservation during the regional hospital in Taiwan; in addition, it is also better than the threshold of 180 EUI.

#### Conclusions

The effective energy conservaion and reduce the energy using can be doing by design of building architecture and equipment choice of energy conservation. In addition, people can do the different energy conservation method, such as employee education trainning course, conference and activity of energy conservation and carbon reduction, advertisments of movie and banner, etc. In fact, we should keep going to do the above methods in order to reach the goal of effective energy conservation.



### Comments

Through the conference and activity of energy conservation and carbon reduction, it has really effectiveness to implement the conception of environmental protection and energy conservation. If we could do this kind of activity, people would know this issue of environmental protection and energy conservation deeply. Therefore, people would also protect our environment and affect the next generations to do the energy conservation and carbon reduction.

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### Energy Analysis Corrections in Eco-Friendly Hospitals – An Example of Scenario Simulation for Air Conditioning Systems

### **CHEN Fan Lun**

### Introduction

According to guided cases for pursuing energy efficient operations in hospitals, statistics indicated an average potential of 10~20% in energy saving when efficiency are suitably implemented to electricity, lighting, air conditioning and large equipment. In specific, the air conditioning (AC) system in hospitals occupies about 50% of total electricity consumption, which in some hospitals the ratio can reach as 60% and above. From the above, energy efficiencies in hospitals shall increase when the efficacy of the AC system is improved.

### Purpose/Methods

In this study the electricity consumption by the air conditioning system of a single building was investigated. The electricity consumption for each day from July to October 2012 (60 records total) was recorded, which the dynamic factors such as outdoor temperature and humidity during each month was used to support our AC system baseline model. To confirm the reliability of our base model, residual analysis was performed with the actual consumption data of each day for estimating our base value.

### Results

Once the baseline model was successfully established, we conducted scenario analysis and cost-benefit analysis to the building's AC system to seek possible action plans for improvement. Operations of the cooling tower fan and water pump was then adjusted according to variable-frequency design to repeat the cost-benefit analysis procedure, at the same months of the next year (July to October, 2013), including outdoor temperature and humidity factors which showed an apparent average energy-efficiency improvement of 5%~20% each month.

### Conclusions

The energy analysis and establishment of a baseline model in this study may serve as reference for hospitals to achieve eco-friendly operations. The established energy baseline pattern included outside temperature and humidity variables can truly respond the interference and estimate energy consumption.

### Comments

The study also discovered that the outside temperature and humidity are not the only factors which directly affect energy consumption of an air conditioning system; other factors such as the number of outpatients, hospital beds, expanded floor area and electronic instruments shall directly or indirectly influence baseline energy patterns. The results will serve as basis for future research.

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### Disposal of medical waste in Reggio Emilia S. Maria Nuova Hospital

### CAVAZZUTI Laura, BONACINI Maria, VALENTINI Claudia, ZAMBONELLI Vilma, CERULLO Loredana

### Introduction

Since 2007 Emilia Romagna Region and S. Maria Nuova Hospital have been stressing the importance of environment. In 2007 they set up the Programme "Health system for a sustainable development". Among other things, the Programme foresaw a steady effort for an adequate disposal of medical waste

### Purpose/Methods

In 2010 the disposal of medical waste was thoroughly analyzed and some critical aspects turned out. Therefore the following measures were set up: - Hospital clinical pathways for an adequate disposal of medical waste; - Bill posting for the appropriate disposal of medical waste; - Gradual supplying of containers for all kinds of waste; - Staff education with courses each year; - Units monitoring for the adequate disposal of medical waste; - Identification of adequate disposal of medical waste coming out from new medical activities and healthcare.

### Results

- Company savings: expenses for the disposal of medical waste at risk of infection decreased from 995,633 € in 2009 to 793,680 € in 2012; - Amount of dangerous waste at risk of infection decreased from 619,163 kg in 2009 to 463,515 in 2012; - Increase in separate waste collection; - Increasing consciousness by staff about disposal of medical waste; - Successful cooperation with hospital units in finding out improving strategies in disposal of medical waste.

### Conclusions

The project will go on by carrying out new educational events fitted to each single hospital unit and by going on with auditing.

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# Hospital infectious waste management - the regional area case study of 82 hospitals in Thailand

### THONGKLEANG Samakarn, UTHAISAENGPHAISAN Saengnapha

### Introduction

Health-care activities protect and restore health and save lives. But what about the wastes and by-products they generate? The medically related waste are mostly infectious and need a special disposal method for universal safety. In Thailand, there are laws and regulations to ensure the sound environmentally-friendly management. However, there is still a challenge.

### Purpose/Methods

This observational study aims to determine the situation and quality of hospital infectious waste management in Regional Healthcare Network Area 9, Thailand. Samples were all 82 hospitals in the area. Questionnaires were distributed, checked, and collected during January – June 2013. Hospital staffs were required to provide information on their current disposal practice of infectious waste and to self-assess the quality of the practice. Descriptive statistics applied for data analysis were frequency and percentage.

### Results

All hospitals produced 7,554.09 kg of infectious waste per day. Rate of infectious waste production was 0.95 kg/bed/day. Provincial-level hospitals produced the most waste, while small and large community-level hospitals produced less waste (1.20 0.85 and 0.38 kg/bed/day respectively). the most transportation was by private contractors (95.1%). Transportation was tracked (50.6%) and regulated with a proof of Infectious Waste Manifest System certification (57.9%). Only 52 hospitals (63.4%) had a standard quality of infectious waste management.

### Conclusions

Hospitals are producing more infectious waste but the management remains a challenge. Private contractors are the weak point in the system which require vigorous monitoring to ensure their compliance to laws and regulations. Supports and capacity building are also important to hospital staffs to reach the standard practice.

### Comments

The researchers strongly recommend an efficient infectious waste transport tracking with documentation reinforcement.

Local governing bodies may take actions by establishing a central waste disposal system, as well as legislating related laws and regulations. Moreover, hospitals must effectively manage that private contractors fully comply with the contracts. Hospitals, which fail to meet the standard criteria of infectious waste management, should investigate into their practice and further improve. Hospitals with sound practice are to be models for experience and knowledge sharing.

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### To reduce the produce of waste – no plastic bags in trash bins

### CHANG Yuh-Lin, CHEN Shih-Iuan, KUO Shiu-Feng

### Introduction

In Taiwan, people consumed more than two plastic bags per day in average which accumulated to 18 billion plastic bags garbage in a year. Although the nation has been running a comprehensive system of recycling used plastic bags, people's voluntary recycling rate is merely 7%. Normally plastic bags will not decompose even being buried underground, and they will produce dioxin and other toxic substances if being turned. Therefore, to reduce the use of plastic bags has become an urgent issue.

### Purpose/Methods

After the Yuli Tzu Hospital commenced, it had been implementing the classification of waste. The hospital re-uses certain types of waste into resources which has effectively reduced the quantity of waste. And started from March 2011, the hospital executed a "plastic bags reduction plan". No plastic bags should be found in the "general type" trash bins. Plastic bags should be found only in "classified as plastic" trash bins. The General Affairs Department staff would check in a daily basis.

### Results

After the execution of the plastic bags reduction plan, the usage of mid-size bags spared 2,319 pounds (27,828 pieces) compared to the prior period, small-size bags 2,863 pounds (85,890 pieces) which means the hospital has reduced the carbon dioxide emission for 1088.2 kg and has saved NTD150,278(€3679.3) for bags purchase.

### Conclusions

When the hospital decided to implement the "no-plastic-bag covered trash bins," few units would like to follow. One reason was that they worried patients would consider it unhygienic. After implementation, they found the opposite results. Bins with no plastic bags covered are even cleaner. Once they got dirty our janitors would clean the bins to keep them clean. As a result, patients are more satisfied. They approved the hospital "a



hygienic environment" with a 4.4% raise in our before-and-after survey.

#### Comments

Being environment-friendly and to save energy are the responsibilities of every Health Promotion Hospital (HPH). Through the implementation of a simple idea did show a good consequence of waste reduction, carbon dioxide emission reduction, costs saving, and best of all, that patients turned even more satisfied with the hospital.

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### The Reutilization of Chinese herb residues through an eco-use method

### LIAU Yi-Jing, CHEN Chi-Hua, CHEN Ching-Yuan, CHIEN Shou-Hsin

#### Introduction

Food wastes and leaves are often buried and let decomposed in backyards in many European countries. The residue from Chinese herbal decoction is highly perishable and smelly. The common disposal methods include landfill, incineration and stacking-up. We used to bury the herbal residues under the ground as medical wastes. However, herbal residues might cause soil and water pollution after rain washing. This study is to develop a feasible strategy to reuse the herbal residues so as to reduce medical waste.

### Purpose/Methods

The herbal residues were collected from 1 January to 30 September 2013. We used the sandwich process to mix the herbal residues and fermenting bacteria in sealed barrels until these two mixtures were thoroughly decomposed and fermented through interaction. We used 10 aloe vera plants, each 10 cm high. 5 were grouped in the experimental group and 5 in the control group. We applied 30 ml liquid fertilizers every two weeks to each plant in the experimental group until June.

### Results

A total of 2,500 kg Chinese herbal residues were recycled and 50-liter liquid fertilizer was collected and used to nourish the medicinal plants. Five hundred kg solid fertilizers were produced and used as solid culture soil to replace commercial fertilizers, saving up to NT\$ 70,000. Compared with the control group, aloe leaves of the experimental group weight 70% more than those of the control group.

### Conclusions

This study found that eco-reutilization of Chinese herbal residues not only causes no harm to the environment but also has positive economic benefits. Decomposing the herbal residues into fertilizers is promising, because the resulted fertilizers can be

used to nourish plants and cause no environmental harm as the stacking up or burning would do. The benefit can be maximized if the herbal residues can be industrially processed as non-chemical fertilizers for advanced agricultural production and environmental protection.

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Promoting vegetarian lifestyles with the usage of recyclable dinnerware lessen negative impacts on the environment.

### YANG Ghung-Wei, CHUANG Shu-Ting, CHIEN Sou-Hsin

#### Introduction

Greenpeace International's report indicated that 1 kilogram (kg) of meat indirectly produces 13 kg of carbon dioxide (CO2) emission. Taiwan's dining out population uses around 10 million disposable chopsticks yearly. Disposable chopsticks are not only toxic when chemicals are ingested; they are also a huge burden for our environment after being incinerated. Therefore, Taichung Tzu Chi hospital promotes vegetarian lifestyles with the usage of recyclable dinnerware to lessen negative impacts on our environment.

### Purpose/Methods

Taichung Tzu Chi hospital collaborated with restaurants to set up different vegetarian booths in the food court. Reusable dinnerware was cleaned with an 80 degree Celsius disinfecting process. Through hospital's announcement, employees were encouraged to bring their own dinnerware. Leftovers were also collected for composting. Vegetarian nutrition classes were provided monthly to promote healthy lifestyles.

### Results

Since the opening of vegetarian food court in year 2010, there were 8 different restaurants providing various cuisine styles to the public. The food court service received SGS (Societe Generale de Surveillance) and HACCP (Hazard Analysis and Critical Control Point System) certification. Our restaurants and food court served 1,750,000 person-times since opening, which reduced 1,365 metric tons of CO2 from meat products, and 175 metric tons of CO2 from incinerating disposable chopsticks.

### Conclusions

A safe and environmental friendly food court can provide positive impact not only on the environment but also on the health of patients and employees. With the help of in-service training, we hope that everyone can adopt an environmental friendly lifestyle.

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### Regulation of Labelling and Hazard Communication of Dangerous and Harmful Materials for Wan Fang Hospital

### YEH Ching-I, HUANG Hui-Chun, HSU Yi-Nei

### Introduction

Wan Fang Hospital uses the Occupational Health and Safety Mode of Operation of the Management System; finding out there is certain degree of risk when touching the harmful materials from the hazardous and risk assessment mode every year. Has started to manage and control the usage of chemical materials for the employees' sake and in order to set up the hospital's regulation of labelling and hazard communication of dangerous and harmful Materials.

### Purpose/Methods

Glutaraldehyde and ortho-phthalaldehyde, which are used as disinfection by soaking the invasive tools and under control in hospital, are irritant to the skin and mucous membrane and cause irritation or asthma if inhaling.

### Results

According to the law in Taiwan, the Standards of Permissible Exposure Limits of Airborne Hazardous Substances in Workplace, the ceiling permissible density is 0.2 ppm. The average tested densities are 0.000975, 0.000681, 0.001736 and 0.004067 ppm in Central Supply Room, Operation Room, Department of Anesthesiology and Pulmonary Function Room. And the most are 0.00139, 0.00133, 0.00508, 0.00339 ppm in sequential. Either the average tested density or the most is far lower than the law standards in Taiwan.

### Conclusions

There are less immersion disinfection in Operation Room, Department of Anesthesiology and Pulmonary Function Room, where there are special made of immersion disinfection case in the independent room. Everyone should wear PPE to work. From the data of hazardous risk assessment between 2010 to 2011, the total exposure risk dropped from 12.2% to 9.8% on touching the harmful materials, the improvement does work.

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### Hospital water-saving measures reducing 100 tons of water per day

### YU Xu-Fu, WENG Chuan-Min, CHUANG Shu-Ting, CHIEN Sou-Hsin

### Introduction

Water is an important resource and a critical element for maintaining health. Taiwan's annual rainfall is 3 times the average amount globally. However, due to Taiwan's unique geography and changing climate, rain water quickly returns to the ocean. The amount of rain water allocated for each Taiwanese is about 1/7th of the world's average. Taiwan is the 18th country with water scarcity crisis. Therefore, managing water resource is an important issue for our nation and Taiwanese hospitals today.

### Purpose/Methods

Using Taichung Tzu Chi hospital's built-in Wastewater Reclaimed Systems, non-hazardous waste water from daily activities was filtered. Water as cleaned through sand filters and disinfectants then stored in 6 storage tanks with a combined volume of 290 metric tons. Tilted roof provided easy collection of rain water. A rainwater harvesting system could store up to 276 metric tons of rainwater. Public restrooms were equipped with water-saving toilets. All activities were monitored by a centralized system to track water usage.

### Results

Since 2011 to September 2013, 22,566 metric tons of rainwater was collected, which used to irrigate 19,000 metric-squared gardens in the hospital. Recycled water was used in public toilets, which replaced 59,747 metric tons of civic tap. Wastewater Reclaimed System had 38.4% of efficiency. 540 faucets were modified to economize water usage (about 42% of all faucets in the hospital), reduced 2,849 metric tons of civic tap water. All methods combined, about 37,000 metric tons of water was saved yearly.

### Conclusions

The hospital established a threshold (average water usage +10%) to manage water resources. In addition, computerized monitoring and routine maintenance are key elements to successfully prevent over-usage. Finally, public education is the most important factor in helping hospitals to reduce water usage; therefore, protecting our natural resource.

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Sustainability in ophthalmic practice: are we hitting the triple bottom line?



# STONE Niamh, SIPKOVA Zuzana, KOUKOULLI Antigoni, LASCARATOS Gerassimos, JÓHANNESSON Gauti, DAS Aditi, BOWES Oliver, JEWSBURY Hugh, PERROTT-REYNOLDS Rhiannon, MORRIS Dan, BOURNE Rupert, CROSS Vinette, CASSELLS-BROWN Andy

### Introduction

Sustainability in eye care is not something that is openly considered at most international meetings. Many meetings have different sub-specialty sections to which an abstract may be submitted but none relate to sustainability and abstracts aren't judged on their relevance to sustainability in addition to clinical quality or value. Nevertheless some of the research presented through current channels may deal with sustainability. This project aimed to assess to what extent work on sustainability is going on under the radar.

### Purpose/Methods

To assess the extent to which abstracts accepted by the Royal College of Ophthalmologists for inclusion in its Annual Congress between 2008 and 2013 represent developments in sustainable practice. The study included 1496 abstracts. Two raters independently assessed each abstract and classified it according to a sustainability framework. Inter-rater reliability was assessed with the Kappa test and there was fair agreement between the raters (Kappa 0.374). A third, independent rater arbitrated any disagreements.

### Results

Twenty six percent of abstracts related to one or more of the dimensions of sustainable eye care and 56% of these were designed to save doctors' time, money or reduce complications and further management. Twenty one percent involved informatics, technology or staff interventions that streamlined care pathways. Twelve percent related to primary and secondary preventive measures, 11% promoted improved self-care and less than 1% focused on interventions that were specifically designed to reduce the environmental impact of care.

### Conclusions

Although sustainable interventions are commonly described, they are not officially recognised or flagged for attendees at meetings. Over 1000 authors and 150 organisations were involved in work on sustainability without any attempt to promote the sustainable dimensions of the work or to build a network of people interested in sustainability. Greater recognition and labeling of sustainable eye care could facilitate research and dissemination of ideas that may increase social, ecological and economic capital.

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### Session P2.17: Promoting health by physical activity

Primary Health promoting physical activity: The Catalan Plan for Physical Activity, Sports and Health (PAFES)

### GONZALEZ-VIANA Angelina, CABEZAS Carmen, VIOLAN Mariona, MIÑARRO Carles, COLL Dolors, RIBERA Sara

### Introduction

One of 5 objectives of WHO Chronic's Strategy'25 to reduce sedentary behavior, which causes aprox. 3334 deaths/year in Catalonia. There is evidence that physical activity (PA) advice at Primary Health Centers (PHC) based on coordinating clinic/community resources helps increase population PA levels. Catalan Plan for Physical Activity, Sports and Health (PAFES) aims to increase % of active people through:1)capacity building of PHC professionals for PA prescription/advice (based on Stage of Change model (SoC)), 2)healthy environment development at municipality (M), 3)networking.

### Purpose/Methods

Purpose: To evaluate the results of PAFES. In sedentary adults with cardiovascular risk factor. At PHC 3 levels of PA advice: 1)Brief:based on PA local offer;2)Counselling: PA prescription through healthy routes (HR) with follow up; 3) referral sports facilities. Electronic Medical Record (EMR) includes SoC and PA advice (PAa). At M: Gathering/creation of healthy PA offer, HR, facilitating sport facilities for referral from PHC. Public health: Training of trainers (ToT), support M, web PAFES, World PA day (WPAD). All: networking&community.

### Results

357 PHC participating, 97% of Catalonia. 714 PA trainers at PHC and 379 at M trained >3000 professionals. ToT evaluated by 74% people:satisfaction >=4 out of 5. In 2013 EMR registered 374.156 SoC and 297.178 PAa. At 206 M 677 HR have been done. WAPD'13 participation of 174.771 people and 391 institutions with community, intersectoral&networking activities. Web PAFES: 104.921 visitors&37.143 downloads. Direct cost of PA advice/person <1€. The % of sedentary people has decreased, from 23,9% (2006) to 19,1% (2011).

### Conclusions

2005 to 2013 PAFES implemented in 97% Catalonia PHC through:ToT strategy, PA prescription and registry at EMR and agents networking at local level to create environments where PA is an easy choice. Giving tools to PHC professionals for PA advice (PA at the EMR, PA as an objective for PHC) and networking between PHC, public health and M (through assets) are keys to improve community health through PA. PA promotion through PHC is effective and sustainable for community health promotion.

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### Promoting incidental physical activity at health centres

### ROURE Eulàlia, ROMERO Mª Auxiliadora, DE LARA Núria, CABEZAS Carmen

### Introduction

Physical activity is a tool of primary, secondary and tertiary prevention. Incorporating physical activity in the daily life is an effective and sustainable way to improve or maintain health. The Department of Health has a multi-strategy programme to promote physical activity and diet in different settings: workplace, schools, health care settings and, community (PAAS). The use of prompts in the decision points to encourage the use of stairs has been proved to be effective and sustainable in Catalonia.

### Purpose/Methods

PURPOSE: (1) Use health care centres to expose the population to messages that promote incidental physical activity. (2) Promote stair climbing at public buildings. METHODS: A package that included a motivational presentation for professionals, a technical guide, signs and posters was designed. Managers of hospitals, primary health care centres, universities and institutional buildings of the Department of Health were informed about the intervention. Those who decided to participate received the package, advice and the prompts needed. A process evaluation was planned.

### Results

(1) Up to 2012, The number of patients older than 14 years of age, that attended the Emergency Department of public hospitals were an average of 1069229 people (16,7%) per year, 529505 people (8,3%) were hospitalized and 4089005 people (around 64%) attended primary health care centres. (2) There was an increase of 50-68% in the use of stairs in the buildings evaluated. (3) From 2009 to 2013, the accumulated cost of the material, including all settings, is 8333€.

### Conclusions

(1) Every year, the majority of the population is exposed to the messages at least once. (2) The evaluation showed a short term improvement in the use of stairs. (3) This activity has proved to be affordable and sustainable and is going to be continued and implemented in other settings as part of the PAAS (Plan for the promotion of health through healthy diet and physical activity).

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### Think and Move!

### **PONTELLO Elisabetta**

### Introduction

The Project "Gaining Health in adolescence" was promoted in 2011by the Local Health Service in collaboration with National Olimpic Committee (NOC) and the Physical Education Office. The topic is integration of healthy Diet and Physical Activity in daily life. The high school "Alighieri" (Gorizia), specializing in sociopsycho-pedagogic and modern languages studies (222 students: 74 males, 148 females), has been chosen among other schools as the promoter of this new kind of educational path because of the experience on sport as education.

### Purpose/Methods

-workshop for training teachers, -self assessment of the students on life styles, -shows based on peer education and dance and sports activities in theatrical performances. Health Services offered the "Healthy Snack" with seasonal fruit during sports events. The check BMI (Body Mass Index) and the Food Diary was integrated by the Movement Diary with calculation of MET (Methabolic Equivalent of Task) and the analysis of the movement abilities through the National Olimpic Committee's program.

### Results

The booklet "Sport e..è salute" edited by NOC is a summary of the results from the research on the physical activities done by the students of the High Schools of Gorizia. The analysis of the data underlines that many students (more than one third of them) do not practice any kind of sports activities. The survey through the MET assessment shows that the project induced an increase of healthy lifestyles,in particular the daily walking (evidence by pedometer) .

### Conclusions

All things considered, it's important to state how the sociopsycho-pedagogical models (Peer to peer) have influenced all the project. Moreover, the great amount of students that have taken part to the initiative and the collaboration with Health Service and NCO, have allowed the awareness of what "health" means for young people. It is very important the empowerment of the integration also with family and community as point of reference in sports initiatives.

### Comments

some questions are still open: How these projects have influenced the educational, health and social fields? After a scientific examination, the practices of the province of Gorizia have given positive results. The application of good practices realizing shows is a good way to encourage young people on their potential and overcome obstacles. This way of learning based on life skills reinforces self-esteem.Healthy lifestyles are connecting with pleasure, gratification and the opportunity to enjoy the actions with peers Workshop on life skills and peer education to promote lifestyles. Sharing the best experiences towards young people



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### Impact of a hospital-established medical fitness center

### KUSUOKA Satoshi, WONG Toh Yoon, MURATA Hirohiko

### Introduction

Healthy aging is one of the fundamental issues of our time and physical fitness has been shown as a pathway toward health and resilience. To improve the local community's physical fitness, a medical fitness center was established next to our hospital in June 2009. The center integrates physical exercise and fitness with disease management and prevention, working closely with healthcare professionals from the hospital.

### Purpose/Methods

In this presentation, we annotate the different fitness programs available at our center and try to analyze the progress since its installation.

### Results

Individual membership has grown to about 500 regular users with more than 75% above the age of 50. Almost 60% of members have some chronic disease, with cardiovascular disease being the most frequent. Incidentally, about 14% of hospital employees are also registered members of the center. Fitness programs include group exercise classes such as aerobics, stretching, walking, balance training etc. The center also provides individual exercise programs tailored to each member.

### Conclusions

Hospital-established medical fitness centers may be a new trend towards achieving healthy aging, providing integrated fitness programs with disease management. National policies supporting the setting up of such enterprises would have a positive impact beyond health promotion.

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From a health literacy perspective, facilitate for seniors to increase their physical activity.

### **HANSSON Anita**

### Introduction

Ageing is a natural process that may involve a reduction in memory functions and cognitive functions. To bring information to the elderly by making it easy to read and visually accessible improves the conditions for equitable care and better health among the elderly. Both genetic factors but also lifestyle affects aging process. With aging follow impaired muscle strength, endurance and balance. Many chronic diseases might as well be due to physical inactivity as aging itself.

### Purpose/Methods

The purpose is to improve the conditions for equitable care and assist the elderly population to be physically active. Thereby delay some age-related changes. This is by designing a card showing a basic range of physical exercises in a simple, appealing and accessible format. The exercises can be performed at home by people who are able to perform on their own, but also of those who need support from another person. The card should be free and accessible on the hospital.

#### Results

A basic range with the 3 most important exercises for the elderly, is shown in the card. Both the pictures and the text is large and distinct. Strength training exercise is done standing up from sitting to standing. Balance training is done standing on one leg in a corner with a chair in front. Walking exercise with walking sticks or rollator is the cardiovascular exercise thar appears on the card.

### Conclusions

Future impact is to contribute to health equity through increased physical activity in the elderly population, and thus a positive effect on the active participation of the society and a higher quality of life into old age.

### **Comments**

The proportion of elderly in the population is growing and getting older. If they can maintain an active and independent life, it means benefits for both the individual and for society. It is therefore important that the information that health care provides are adapted to the needs of the elderly.

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## Investigating the Effect of People Live in Alishan to Nurture Good Habits of Exercise

### CHEN Mei-Tsu, FENG Ren-An, HUANG Yu-Ting

### Introduction

According to the data of receiving medical treatment from north tribes of Alishan(Leye Village、Dabang Village、Laiji Village、

Lijia Village) shows hypertensive heart disease and diabetes mellitus are in the first and second place. Metabolic Syndrome is composed of chronic illnesses such as heart disease, diabetes mellitus, hypertension. Many studies support that physical activity can reduce the incidence of metabolic syndrome. Therefore, we can promote the community health due to developing regularly exercise habits and establishing health-conscious.

### Purpose/Methods

The hospital has been promoting many physical activities to the community, and that wins people's love is healthy dance group. Therefore, this study intends to continue to promote this sport to the people of north tribes of Alishan, can reduce the symptom of metabolic syndrome by the healthy dance group. The research tool is a cross-sectional study. We can understand people's motive and demand by in-depth interview, raising people's volition to continue exercise at home without coach leading.

#### Results

There are 24 session in this study. Each tribe holds one session a week lasting 2 months. 83 people take in the group, 499 participants during 2 months, 90% average attendance. Before taking in the group, 52 people had abnormal BMI. After taking in the group, 24 people lost weight (2kg/1 month), 40 people trimmed down waistline (2cm/1 month), 74 people keep exercise (3 times/a week、20-30mins/time).

#### **Conclusions**

When people start to nurture good habits of exercise, them can continue exercise by themselves. Taking exercise regularly and in right place with other fellows of group can increase the health of their bodies, mind, and spirit more effectively. Short-term target is coach practices what they preach to influence them family and people live in tribe. Medium-term target is to train a local coach to increase the sports population. Long-term target is to promote a healthy life, family and community.

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The Project of Mackay Memorial Hospital 2K Energetic Walking

## CHEN Yu-Hua, HWANG Lee-Ching, CHAN Hsin-Lung, LEE Shu-Chen, HU Nai-Fang, CHANG Chia-Mei

### Introduction

Through "The Project of Mackay Memorial Hospital 2K Energetic Walking", we involved both hospital workers and community dwellers in putting the idea of health promotion into action. The benefit of this walk was later emphasized to the public audience.

### Purpose/Methods

Purpose: Promoting healthy diet and exercise through "The Project of Mackay Memorial Hospital 2K Energetic Walking" Method: This program was planned according to the Ottawa Charter and was divided into three steps. The first step was planning the walking route (a 30-min walk around the hospital or a total of 2000- to 2500-step walk). The second step was encouraging hospital workers to participate in the walk once a month at noontime for a total of six times. During each time, we also promoted ideas of healthy diet and exercise. The third step was to encourage patients' families and community dwellers to participate in this activity.

#### Results

A total of 3,325 person-event. Results were as followed: 1. A decrease in body weight loss was noted along with an increase in frequency of participation; average body weight loss of 0.223kg per person.2. An increase in health activity was noted in those who participated in the activity, especially in the amount of fruit consumption and weekly exercise frequency. 3. An increase in motivation for weight reduction in those with BMI>24. 4. An increase in motivation for exercise, and enhancing work efficiency and unity in the community.

### Conclusions

Benefits in body weight control, healthy diet, and regular exercise were noted through "The Project of Mackay Memorial Hospital 2K Energetic Walking". In addition, this activity can enhance work efficiency and unity in the community.

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Benefits of Adapted Physical Activity on Muscle Strength on the Frail Older Adults in Senior Center

### CHUANG Fei Chi, WU Meng Tien, CHAO Chien Ling, HUNG Ling Yu

### Introduction

Exercise could improve fitness in older adults. However, many frail older adults cannot do active exercise on standing posture in the community. Therefore, the purpose of this study is to investigate the effects of Adapted Physical Activity (APA) in frail older adults.

### Purpose/Methods

Fourteen frail older adults (mean of age: 81.88 years old) took part APA protocol two times a week for twelve weeks. Before APA intervention, each participant was instructed to perform the adapted physical fitness test, including body mass index, flexibility (back scratch test and chair sit-and-reach test), muscle strength (grasp test and sit-to-stand test), and cardiorespiratory endurance (2-minute raise hands test). The questionnaire was screened to rule out the inadequate cause to perform



assessment, such as heart disease and acute disease. The exercise session consisted of warm-up, upper extremity aerobic exercise, dynamic adapted physical activities (e.g. volleyball, tennis, hockey, boccia and baseball, etc) and cool-down. The procedure was all on sitting posture. Analysis was done using the SPSS 14.0 statistical software, and the descriptive statistics and a paired-t test were conducted.

#### Results

After 12-week APA training programme, participants significantly increased the muscle strength (upper limb, p= 0.031 and lower limb, p= 0.025) and improved BMI (p= 0.039). There was improving tendency on cardiorespiratory endurance (p= 0.089) and lower-limb flexibility (p= 0.064).

### **Conclusions**

12-week APA programme could significantly promote muscle strength and body composition in frail older adults.

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# A longitudinal study on physical activity changes and intervention of community health care on the elderly over 60 years old

### HAN Pei-Fen, CHEN Wen-Chun, CHEN Fang-I

### Introduction

According to the advance of medicine and improvement of life quality, longevity has prolonged in recent years and the proportion of population of the elderly has increased. In 2012, the average age of Taiwanese reaches to 79.51. If the deterioration, induced by aging, of the mind-body function of the elderly were well managed, it is likely to alleviate the burdens of caregivers and the relatives as well as the social pensions.

### Purpose/Methods

This longitudinal study aims to investigate the outcomes of the participation of elder people aging over 60 in community health care conducted by the community care center. This study assembled 26 subjects lived in the community in Southern Taiwan for one year constant observation. By introducing body-mass index control, management of chronic diseases, diet education, and exercise, it is believable that the subjects will receive proper treatments to prevent complication of diseases from happening.

### Results

The age of the subjects ranges from 62 to 92 years old, 10 males and 16 females. Among the subjects, 19.23% has no chronic diseases, meanwhile, 30.80% (8 subjects) gets hypertension and diabetes. During the study, 12 session have been conducted for

introducing nutritional education, diet consultation, and exercise. The result reveals that the abnormality of blood pressure decreases from 73.07% down to 36% and blood sugar from 40% down to 23.80%.

#### Conclusions

This study found that the subjects are able to achieve health promotion by attending the care sessions conducted by the community care center. The results indicate that the subjects improved their physiological indices of health and cognitive abilities, including social ability, fitness, blood pressure, weight, girth, BMI, leading to the conclusion that it benefits the health of the elderly, defers aging problem, and ameliorates the life quality of the elderly.

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### Changing Physical Activity Habit Reduced Metabolic Syndrome in a Hospital-based Community Cohort and Health Promotion Program

### HSIAO Tien-Mu, CHANG Huan-Cheng, HSU Shih-Tien, CHAU Tang-Tat, LIN Chien-Tui, CHEN Yi-Hsien, TSOU Tsung-Shan

### Introduction

Whether the change of physical activity habit reduced the incidence of metabolic syndrome (MetS) or not were investigated among residents included in the health promotion program after a cohort study screening.

### Purpose/Methods

Data were from a community-based, chronic disease and cancer oriented health screening cohort study (LIONS). Questionnaire including life-style factors were surveyed every other year. Residents participating in the cohort screening were included in the health promotion program which included the community reaching medical team diet and exercise consultation and local health promotion units' exercise activities. The association of the two-year incidence of MetS with the change of physical activity in two years was investigated.

### Results

The study sample included 6003 participates of cohort study. Age, the change of BMI, drinking and physical activity were risk factors of two-year incidence of MetS. The physical activity habit changed from no exercise to over 90 minutes exercise, at least 30 minutes and three times every week, decreased the two years incidence of MetS.

### Conclusions

Changing physical activity habit from no exercise to over 90 minutes exercise every week reduced the incidence of MetS.

#### Comments

Program including over 90 minutes exercise every week medical team advice and exercise activities in the local health promotion units attenuate the occurrence of MetS.

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### The Effectiveness of Tai Chi Chuan Exercise for the Community Residents

### LEE Jiun-Shiou, HO Hsuan

### Introduction

Physical inactivity is highly associated with many chronic diseases, such as cardiovascular disease, diabetes, and obese. Tai Chi Chuan is a traditional form of Chinese martial art which is a moderate intensity and low impact exercise. This exercise program of Tai Chi Chuan can enhance health-related physical fitness, prevent from chronic diseases and improve the quality of life of community residents. Increase the attention of regular taking exercise of community residents can help them build healthy habits.

### Purpose/Methods

The purpose of this program was trying to make a protocol to empower and teach the community residents exercising regularly. We held attractive classes and activities to teach participants the know-how and to keep good exercise behaviors. Furthermore, we trained community volunteers to actively participate in this program. We evaluated the effectiveness of the program by measuring the body mass index, the range of flexibility exercise, the daily exercise regularities and the self-satisfaction of the participants.

### Results

Forty participants (age: 59±7) were enrolled into the project. After the interventions, the average body mass index of the participants reduced from 27kg/ m2 to 25.6kg/m2, the flexibility increased from 26.9cm to 31.5cm and the rate of regularly daily exercise increased to 85%. The self-satisfaction of the participants was up to 90%.Because of diversification interventions, good atmospheres for exercises and volunteers participate were provided, and this program has made good progress on keeping regularities of exercises among participants.

### Conclusions

Moderate exercise could improve physical fitness, reduce the incidence of chronic diseases. Health workers should provide not only lectures, posters or brochures but also continuously encourage participants to participate the activities. Besides, establishing a good atmosphere and environment for better accessibility for participants is also an important key point. Health

workers should use hospital and community resources to build community service networks so that people could get more accessible and individualized healthy service to manage their health well.

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# Effects of whole body vibration training on physical fitness and postural control in hemodialysis patients

### LIN Hsiu-Chen, YANG Ya-Fei, HUANG Chiu-Ching, KA Ya-Yi, TSAI Yue-Hua

### Introduction

In Taiwan, the number of patients with end-stage renal disease is steadily increasing. Medical care for these patients may involve hemodialysis (HD), which required them to attend renal unit three times a week, attached to a dialysis machine via a vascular access to the circulation. HD patients are less active, and limited physical activity further lead to poor exercise capacity and participation to exercise. Lately, whole body vibration (WBV) exercise becomes popular and is consider a novel method of training.

### Purpose/Methods

This study aimed to investigate the effects of a 3-month WBV training program on physical fitness, postural control and quality of life (QoL) in HD patients. Participants attended for exercise before their routine hemodialysis sessions. They performed exercises on a vertical vibration platform, including squat, toesstand, one-legged squat and lunge. One training session, up to 30min, consisted of 4-5min warm-up, 10-15min WBV exercises, and 5-10min cool-down. All the measuring variables were analyzed statistically to compare before and after the program.

### Results

Seventeen HD patients completed the WBV training program. Their performances in all the physical fitness tests were significantly improved, i.e. faster 5-rep sit-to-stand, stronger grip strength, quicker up-and-go test, more steps in 2-min period and higher Berg balance scores. They demonstrated improved postural stability with significantly higher equilibrium scores in eye-closed on stable surface condition and eye-opened on unstable surface condition. For dynamic balance tests, faster movement velocity in the fast pace of the left-right weight-shifting test was also found.

### Conclusions

This study provided evidences of beneficial effects on physical fitness and postural control after WBV exercise training program in HD patients. The completion of the program with good



attendance rate in our participants showed that WBV exercise may be considered a practical and effective training tool that suitable for HD patients. The results of this study may provide references for the nephrology society and may advance the concept of long-term rehabilitation into routine care of dialysis patients.

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# The Effect Of Exercise Intervention On Pain Relief Functional Fitness—With Pingtung City Care Center Elderly

### SHIAO Li-Chen, YEH Li-Chun, TSENG Ho-Hui, NEOH Choo-Aun

### Introduction

General fitness establishes the quality of life, but it often decreases with age. Elderly are also more likely to have multiple chronic health pathologies, declining function, and frailty. The barriers present for patients, providers, and health systems and effective pain control. Taiwan would become an "aged" society by 2018 and a "hyper-aged" society 20 % of the population 65 or over by 2025. We thus need an age-specific standardized management guidelines for various health problems, including chronic pain.

### Purpose/Methods

The aim of this study was to study the effect of exercise intervention on pain relief functional fitness of elderly and thus improve their physical function status. We included a total of 69 elderly older than 65 years old from the Pingtung City Care Center. 70.5% were female, 29.5% were male with and average age of 73.81±6.694 y/o. During the study period, they were provide exercise intervention, once a week, 60 minutes each time for 3 months. Their simple pain score and funtional fitness status at pre-test and post test and then their datas were analysed with pair T-test, SPSS.

### Results

Our results showed that 10 times of exercise intervention did improved the elderly pain score and funtional fitness status. Significant pain relief noted (pre-test: :12.38±7.602, post test: 5.14±4.411); funtional fitness for their upper limbs flexible degree (pre-test: -17.71±12.804 cm, post test:-15.45±11.426 cm), , lower-extremity flexible degree (pre-test: -2.81±10.531cm, post test: 27±11.134cm), dynamic balance (pre-test: 12.61±11.220 sec, post test:15.43±11.604 sec) (p<.05).

### Conclusions

From the result we obtained we concluded that 10 times of exercise intervention can improved the elderly pain score and funtional fitness status. We suggest that in the future related

research, we should design more exercise and exercise that able to improve the elderly daily life activities so as to improve their life quality and physical function status.

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# A Pilot Study on the Effect of Mobile Physical Activity Promotion Tool in Subjects with Overweight/ Metabolic Abnormality

### YANG Ya-Ping, WANG Chi-Jen, YANG Ya-Ting, WANG Jeen-Shing, YANG Yi-Ching

### Introduction

A stronger association between regular physical activity and lower prevalence or incidence of metabolic syndrome is found. Evidence suggests that increasing physical activity in one's daily living may prevent metabolic syndrome and obesity. In order to record the whole-day physical activity and feedback to the client to positively reinforce one's activity, we develop the mobile activity sensor and feedback system (uCHAMPsys®) to promote physical activity.

### Purpose/Methods

First, we validate the MET mapping model construction algorithm, and develop the web-based digital content to motivate the user to lead an active living. Then, we design a pilot study to implement this system to subjects with overweight/metabolic abnormality to test its effectiveness on promoting physical activity and improving body composition, physiological parameters and quality of life.

### Results

Totally, we recruit 20 subjects in this pilot study. After six weeks of using the mobile activity sensor system, physical activity amount (including mild, moderate and vigorous physical activity) and cardio-respiratory fitness (including three-minute stair-climbing and one-minute sit-up) have improved significantly. However, there are no significant changes in preferences of physiological indicators (blood pressure, weight, waist circumference, and body composition), glucose level, lipid profile and other metabolic and biochemical indicators, psychological health and quality of life.

### Conclusions

This mobile device can effectively increase physical activity and improve physical fitness preliminarily. This study is still in progress and will continue to follow the subjects after 12 weeks.

### Comments

After this pilot study, we will implement this system to all the staffs with overweight/metabolic abnormalities in our hospital.

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# The Effects Baduanjin Support exercises help improve patients'health

### WANG Ying-Kuan, LEE Mung-Jung

### Introduction

World Health Organization has pointed out that the lack of exercise has become the fourth factor leading to death. Every year, 6% of death is related to the lack of exercises. (Ministry of Health and Welfare, 2012) Bureau of health promotion encourages people to develop the habit of regular exercises. Taipei TzuChi hospital is located in metropolitan new Taipei district. An average number of 3,577 patients come on a day. The three most frequently diagnosed diseases are high blood pressure, nephritis, and kidney-related diseases.

### Purpose/Methods

1.Ba duan jin exercise does not require equipments: It combines physical exercise with breathing and mind exercise practices. 2.Participants: Professional trainers and nurses. 3.Training: In 2012, coaches trained the medical professionals to teach Ba duan jin exercise. 4.Participant number: About 5-10 people participate in each session. Coaches and nurses invite people to join the exercise session twice a week, for 15-20 minutes. 5.Exercise:Ba duan jin exercises people's upper body, especially chest, stomach, and hands. People also learn breathing and relaxation techniques during the sessions.

### Results

Participants fill out evaluation forms and the results are analyzed. Patients exercise while waiting to see doctors and build up a special friendship with the medical professionals at the hospital. Baduanjin exercise is an easy exercise for people to improve their physical fitness. In practicing, people can learn about the importance of exercises. It improves people's muscular strength and relaxation skills. Patients feel more relaxed after exercising and the exercise sessions allow patients and medical professionals to build up a special bonding.

### **Conclusions**

In Taiwan, the ten top mortality factors are related to the lack of exercises. Exercises can prevent long-term illnesses, lower the risk of having cancer or falling. (Bureau of Health Promotion, 2012) The hospital not only provides medical care, it also guards people's physical and mental health. Our outpatient team creates a friendly environment for the patients, hoping to be a hospital that has medical professionalism and culture, as well as a hospital that people trust.

sessions. In addition, 85.13% of medical professionals are satisfied about learning Baduanjin. Taipei Tzu Chi hospital encourages patients to practice Ba duan jin exercises and help them develop the habit of exercising.

About 86.5% of participants are satisfied with Ba duan jin exercise

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# Session P2.18: Promoting susbtance-awareness and preventing substance-related harm

Preoperative alcohol consumption and smoking - Web-based learning for Health professionals

### **MOLIN Carin**

### Introduction

At Skåne University Hospital in Sweden 142 patients receive surgery every day. Patient safety is an important issue at the hospital. Smoking and hazardous drinking are risk factors for an increased rate of complications after surgery. Abstinence from alcohol four weeks prior to surgery reduces the risk. Abstinence from smoking 6 to 8 weeks pre- and postoperative reduces the risk. Health professionals must have knowledge about how patients lifestyle habits can affect the result of the surgery.

### Purpose/Methods

The purpose is to create a simple education for health professionals about preoperative alcohol consumption and smoking. The objectives of the education - Health professionals should have knowledge about: - how preoperative alcohol consumption and smoking pre- and postoperative are associated with an increased risk of postoperative complications. - how to have a good dialogue with the patients about alcohol and smoking. - how to define high alcohol consumption. - where to refer patients who need support with improving lifestyle.

### Results

A web-based learning for health professionals about pre- and postoperative smoking has been developed. An education about preoperative alcohol consumption will be done in March 2014. In the programme there are, for example, information about patient safety, evidence, communication and intervention programmes. It is an interactive education and takes about 20 minutes. There is a questionnaire for testing the knowledge. A follow-up of the objectives will be done during 2014.

### Conclusions



Comments

At Skåne University Hospital there are about 11 000 health professionals. Many of them meet patients before or after surgery. Web-based learning seems to be a simple way of training to reach many people. It's possible for the health professionals to decide when and where to do the training. They can also do it many times for repeating the new knowledge. Further conclusions will be done after the follow-up of the objectives

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A culture of collaboration in alcohol prevention in order to increase awareness of risk factors and knowledge in both health care professionals and general public

### NILSSON Paula, HAIKKA Pia

### Introduction

According to World health Organization, WHO, is unhealthy lifestyle the main cause of Non-communicable Diseases in the world. The Swedish National Board of Health and Welfare has published National Guidelines for Methods of Preventing Disease by supporting patients in their efforts to change unhealthy lifestyle habit(s). Today it is more common to discuss lifestyle habits with patients in Primary health care than in hospitals in Sweden.

### Purpose/Methods

The purpose of the collaboration, creating a network between different organisations both in public health care and private providers as well as voluntary organizations, is to reach out to so many levels and arenas as possible in society to increase knowledge about unhealthy lifestyle and the risk factors. This cooperation is a tool for the main goal in the future: to support more people to change unhealthy lifestyle and give up hazardous alcohol use to gain a better health.

### Results

Skaraborg, with it's 15 municipalities and 260 000 inhabitants is part of the Västra Götaland Region in Sweden. The network includes Skaraborg Hospital, Public Health workers in the 15 municipalities, Public Dental Care, IQ (an independent subsidiary to Swedish national monopol for alcohol), Alefors foundation and two voluntary organizations, IOGT-NTO, MHF. A partnership makes it possible to reach out large, not only to those who already become patients.To start with, by organizing education and information to all parts together.

### Conclusions

Developing good care in hospitals includes prevention and health promotion in day to day work. But to be successful and to gain public health is not possible without a culture of collaboration. The cooperation has led to a sustainable, stable network that is growing and engaging more members who want to join the network. Together can we reach out to far more people than we would do on our own.

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### The Application of alcohol abstinence on Cognitive-Behavior Grouptherapy

### CHEN Chaofen, CHEN Yahsiu, CHIANG Hsinju, WU Minling

### Introduction

Alcohol is legal and available in many social situations often let people closer, or feeling to relieve stress; while drinking behavior in general, individuals often found health, family or social problems, and spent a lot of medical and social costs. Many studies have pointed out that individuals face between stress and drinking behavior, among family and work are more common. Cognitive behavioral group therapy, or CBGT, this form of therapy does make a stronger emphasis on interaction and cooperation between patients rather than that between the therapist and the patient.

### Purpose/Methods

The purpose of this study was to expole the association between health behavior, emotional disturbance, anxiety, depression and alcohol abstinence of subjects with alcoholism. In this study, have 8 subjects who drunk driving and jailed several times.; this CBGT has 6 session, every session has 2 hours. during group, we have self-report questionaires, like: anxiety, depression, health behavior and alcohol abstinence motivations.

### Results

the subjects performance in scales are below: anxiety scale mean=24.85, V=37.8 (mild degree); depression scale mean=19.42, V=144.95 (mild degree). Demographic variables description: before jail, they all have stable job, and drink alcohol everyday. they feel satisfative of psychological health, but a little unsatisfative of life.

### Conclusions

In this study, subjects used to drink alcohol to reduce stress. alcoholism is association between anxiety, depression and self imagine of satisfative life and psychological health or not. Thus, further understanding of alcohol-dependent subjects perceived stress and coping situations, in addition to providing an appropriate place, but also to further the prevention of alcohol at high risk of becoming alcohol-dependent patients, families and reduce social problems arise.

### Comments

this study has a small sample size, so difficult to deducate to other groups. in furture, maybe have more subjects to join the CBGT.

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# A Study on Group Work from the Strengths Perspective on Alcoholism and Follow up.

### CHANG Shu-Jing, LIN Shu-Ling, CHOU Chao-Hua

### Introduction

This study attempts to explore the effect of strengths perspective group work on the treatment of alcoholism.

### Purpose/Methods

Both quantitative and qualitative methods are adopted in this study. The subjects were recruited from a hospital in Changhua area in Taiwan, eight male with alcoholic problem were invited to participate in our study. After thirteen sessions of strengths perspective group work, research data were collected by questionnaires and individual interviews.

### Results

The findings in the group process: First, through the group work process, the alcoholics are more autonomous. Second, through the group work process, the alcoholics are more often to disclosure themselves. Third, alcoholics care about each other and have positive relationship in group. Forth, the "process evaluation" is very important. The last, the impedance of wanting.

### Conclusions

The outcome of the group work: First, through the group work, the alcoholics were more willing to help others. Second, the relationships between alcoholics and their family were more intimate and positive. Third, the status of recovery were improved, especially in out-patient. The last, most alcoholics were more satisfied with their life. One year later, the status of recovery of out-patient is better than in-patient. The only one out-patient can keep attendance in group and keep away from alcohol. We assume that is because the "wanting" of patient can more easily be practiced in his community life.

### Comments

According to the findings and conclusions of this study, we made some recommendations, such as (i) the implementation of community alcoholism physical therapy services; (ii) alcoholic's family and emotional issues need to be concerned; (iii) how and when to do strengths perspective work; and (iv) how to create a

strengths perspective environment. We hope that could be used by practitioners and future research.

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### Reducing Alcohol Consumption Project in urban areas

### FANG Chun-Kai, LIN Chih-Fan, SHIH Pao-Wen

### Introduction

Alcohol dependence is a common communal problem in many countries. Reducing Alcohol Consumption Project is an evidenced-based approach to treat alcohol use disorders. According to previous studies, alcohol use disorders were related to suicidal ideation and attempt. The Suicide Prevention Center at Mackay Memorial Hospital provided BRENDA model to promote the treatment of alcohol use disorders in urban areas. The purpose of the retrospective survey is to evaluate the efficiency.

### Purpose/Methods

We analyzed the raw data from January to December 2013 with descriptive analysis to understand the development of alcohol reduction service supported by New Taipei City Government. We had the tools to evaluate, including AUDIT and PHQ-9. We analyzed the outcome of the alcohol reduction service about the raw data. All patients with alcohol dependence in the service received all services at least 3 months.

### Results

There were 150 cases receiving the service with the BRENDA model. The average fee of the extra medical budget was under 290 US dollar person/ year which were supported. The prevalence of heavy drinking was decreased from 76% to 18%. The prevalence of major depressive episode was decreased from 61% to 15%. The prevalence of suicide ideation was decreased from 45% to 12%.

### Conclusions

The alcohol reduction service in urban areas is acceptable by patients with alcohol dependence and their family. From the aspect of health promotion, it is important to help heavy drinking people to reduce the amount of drinking.

### Comments

The alcohol reduction service provides the possibility to connect hospital and community. It should reduce the accidents related to alcohol. The service project was supported by the Department of Health in New Taipei City.

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## Problem Drinking Experiences and Associated Factors among Juvenile Offenders in Detention

### KIM Hyekyeong, KIM Suyoung, SHIN Wonshig, CHO Han-Ik

### Introduction

Adolescent alcohol use can be a major problem resulting in significant health and social problems. Alcohol use in adolescents is associated with motor vehicle crashes, risky sexual behaviors, suicide attempt and other drug use. Specially problematic drinking behaviors have shown significant impact on adolescents' violent behaviors and other anti social behaviors

### Purpose/Methods

The present study examined problem drinking and risk drinking experiences and their associated factors in juvenile offenders. The survey was conducted on adolescent inmates aged 13 and 18 years old at 10 detention centers through a self-administered questionnaire in 2012. Data of problem drinking experiences were analysed for 1,525 inmates and those of risk drinking were analysed for 1,780 inmates.

### Results

Of the adolescent offenders, 79.4% showed problem drinking experiences. Delinquent adolescents were 1.85 times more likely to experience problem drinking than non-delinquent adolescents. Findings showed that problem drinking and risk drinking experiences were more common among adolescents who were girls and middle school students, had low academic performance, were not living with their parents, and experienced smoking/drug use relative to their counterparts.

### Conclusions

The study results showed that problem drinking experiences were linked to juvenile delinquency. Therefore, interventions which address health risk behaviors should be developed and implemented to prevent the juvenile delinquency.

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"On the road to... growth-Sulla strada per ...crescere" - Empowering coping skills in adolescents to prevent

### **POZZI Marta**

### Introduction

The growing diffusion of tobacco smoke, alcohol abuse and cannabis use in the adolescent population of both sexes, often associated with other risky behaviors, highlights the need to implement preventive strategies articulated, verifiable and based on scientific evidence. In this context, it has been decided to develop a project that will provide operators with a useful tool for their operational needs. The project is based on WHO's guidelines, indicating life skills promotion through interactive methods as a good practice.

### Purpose/Methods

Main purpose: promote life skills and prevent substance use in school classes. According to standard 3.2 "Patient's Information and Intervention", health professionals have used the manual "Sulla strada per ... crescere" with 9 secondary school classes (experimental group), while 9 classes didn't receive any structured intervention (control group). Experimental classes have worked with the manual during a 20-hour interactive training (role-playing, discussions...) Test-retest questionnaires have been used in both groups to detect differences ascribed to the intervention.

#### Results

According to standard 2 "Patient's assessment", we have used standardized questionnaires in both groups, to evaluate changes in coping skills and substance use. Results indicate that the self-help manual works as an interactive method to prevent substance use. Scores of the CASQ has demonstrated an improvement in coping skills and scores of the ESPAD has demostrated a decreased substance use (alcohol, tobacco and cannabis) in the experimental group with respect to control group. P-Values are statistically relevant (<0.05)

### Conclusions

This practice is an example of a universal school-based drug prevention program that is evidence-based because evaluation data are available. As the manual "On the road to...growth" has demonstrated its effectiveness, it may be used by health care providers to train teachers/educators in health education activities. A 12-hours training would be enough in order to become competent in using the manual and promote coping skills, not only in different schools but also in informal contexts.

### Comments

The originality of this project lies in the use of a self-help manual for adolescents only recently published; students, teachers/educators, health professionals are empowered and are empowering because they enhance their resources through the self-help method. Professionals with different roles may implement the project, having the opportunity of realizing a multiprofessional and intersectorial work. This program is sustainable because teachers/educators can continue to use the manual by their own and apply it in different context, reducing health disparities among adolescents. Workshop on life skills and peer education to promote lifestyles. Sharing the best experiences towards young people

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### Street office as a strategy for health promotion to drug addicted care

### WETZEL Christine, FRIEDRICH Melina Adriana, DELGADO Vera Beatriz

### Introduction

The grate metropolis have been feeling the consequences of the rising consumption of psychoactive substances – as crack – that cause fast dependence. This way, in 2009, Brazilian Health Ministry proposes the Street Office (CR), a modality of assistance extra walls directed to drug users that live in more social vulnerability conditions and further from health services and intersectional network

### Purpose/Methods

This study has qualitative and descriptive nature, and it was done with one CR in the capital city of Porto Alegre, Rio Grande do Sul, Brazil. The participants were seven workers that integrated the team in the period of this research. For data research, it was done a semi-structured interview. The data analysis made possible the construction of two categories: The CR as device to access to network; and The dimensions of the organization of work and care in liberty.

### Results

The CR is identified by the interviewed people as front door to health services, making possible the access to those who are in position of society's exclusion. The CR team takes position as a bridge, connecting the person to other health services, shortening distances and rebuilding their selves as facilitator elements to this access. We will preset three aspects that were pointed out by the people interviewed: respect to autonomy of users, streets as space of care and itinerating care.

### Conclusions

Street Office appeared in the context of Brazilian health as and innovating and potent strategy to drug users care on street situation, once it gives chance of access to people until then excluded and stigmatized and that, by other ways, stay totally at the boundaries of the health system.

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### Prevention of hypnotics and street drugs abuse in high risk population in

### community: The first-year experience in Changhua Christian Hospital.

### CHIANG Yi-Jung, CHIEN Su-Yu

### Introduction

The abuse of street drugs in youth is an important public health issue in the world. Hypnotics abuse, especially the elderly, is also a great concern. Taiwan Ministry of Health and Welfare subsidized Changhua Christian Hospital to establish a Center of Anti-Drugs Education Resources. Center's mission is integrating multiple resources in local community, and making them as gatekeepers in street drugs and hypnotics abuse prevention. High risk population in high schools, public entertainments and hospitals are all our potential targets.

### Purpose/Methods

The Center of Anti-Drugs Education Resources is executed by pharmacists. The goal of first year is to set up an anti-drugs abuse network. First step, we trained center's seed teachers. We joined psychiatric physicians together to establish training program to reduce the risk of physician hypnotics over prescribing. Another training program was provided to community pharmacists and high school teachers. Second step was searching for an alliance with different community resources and hold promotion activities in different communities and schools.

### Results

17 physicians, 20 pharmacists and 10 high school teachers have been trained as our seed teachers. Cooperation relationship with 10 organizations and groups at first year was established. We arranged thirty different anti-drug abuse activities across nearby three counties, and held a press conference to promote our center and the way to reduce drug abuse risk. In the end of first year, we invited anti-drugs abuse experts and cooperation partners together to discuss the future work in the following year.

### Conclusions

After first-year's hard work, we set up an anti-drug network, and establish new cooperation relationship between different organizations and groups. Through the interactions with different groups, we got several useful suggestions and understood more about their needs. Therefore, our next year goal will focus on: 1. correcting the hypnotics use behaviors of physician and patients; 2. high risk students in schools, and inspiring them to resist street drugs abuse via several actions.

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### Improve The Urban Amis Indigenous the Hazard Awareness of Betel nuts



### WENG Chung-Feng, SU Yu-Mei

#### Introduction

A survey by the National Health Department in 2010 shown that, men at age 30-39 years old have the highest rate in chewing betel nuts (19.1%), followed by men at age 40-49 (18.1%). However, among those Amis people who move to the urban cities, 90% of them are chewing betel nuts. In Amis traditional culture, betel nuts, is not only an edible plant but also the expression of affection between men and women and respect to family elders. With the influence of the urban culture, the betel nuts become a hazard to the health of the clansman which is different from the traditional culture.

### Purpose/Methods

In order to improve the hazard awareness of betel nuts and reduce the rate of betel nuts chewing, the implementation strategies are as follows: 1. According to the tribal culture, organized music groups will improves the hazard awareness of betel nuts. 2. To educate the people to have a better understanding of the danger of chewing betel nuts. 3. To collects cases from the tribe people who are willing to quit chewing betel nuts. 4. Health-promotion cases counseling by a nurse and follow up.

#### Results

By performing tribal music activities,43 indigenous people raises their awareness of betel nuts hazards. Among these 43 people, 14 people (33%) are willing to accept to quit chewing betel nuts counseling. Through constant follow up, 6 months later, 9 people (64%) have decreased chewing betel nuts while 5 people (36%) have successfully quit chewing betel nuts.

### Conclusions

Through anti-betel nuts music group and case management strategies, there is a significant reduction of chewing betel nuts due to their awareness of the damages of chewing betel nuts to their health.

### Comments

Training the tribal youth health groups, can promote their health and empower the youth to create a series of health promotion activities. These will help the health capacity for the next generation, and improve the existing health problems. Thus, the tribes can be more active and healthier.

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Betel-quid, alcohol, and cigarette use were associated with lipid accumulation product among male factory workers in Taiwan

### **HUANG Chih Fang, KOO Malcolm**

#### Introduction

Patients with metabolic syndrome are at increased risk of developing cardiovascular disease and type 2 diabetes mellitus. Previous studies have reported an association between betelquid use and increased risk of metabolic syndrome. The aim of this study was to investigate the association between betel-quid use and risk of cardiometabolic disorders using a simple index — lipid accumulation product (LAP), in Taiwanese male factory workers.

### Purpose/Methods

Total 815 male were recruited during their annual health examination. Anthropometric and biochemical data were obtained and information on lifestyle variables were ascertained using self-administered questionnaires. Subjects with cardiovascular disease, hypertension, or diabetes were excluded. The risk of cardiometabolic disorders was estimated by the use of LAP, which was calculated as (waist circumference [cm] – 65)  $\times$  (triglyceride concentration [mM]) for men. Simple linear regression and multiple linear regression analyses were conducted to evaluate the association between LAP and its risk factors.

#### Results

The mean age of the subjects was 45.4 years. Of them, 37% were on shift work schedule, 40% were current alcohol users, 30% were current smokers, and 7% were current betel-quid users. Multiple linear regression analysis revealed that current betel-quid use (p < 0.001), alcohol use (p = 0.039), smoking (p = 0.028), and higher body mass index (p < 0.001) were significantly and independently associated with LAP.

### Conclusions

In this study of male factory workers in Taiwan, betel-quid use, alcohol use, and smoking were found to be independent risk factors of LAP, adjusted for body mass index.

### Comments

Health promotion programs should target their efforts in preventing betel-quid, alcohol, and nicotine dependence in factory workers to reduce their risk of cardiometabolic disorders.

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### Session P2.19: Supporting hospital staff to quit tobacco consumption

2013 World smoke-free day: new activities to raise awareness for our personnel

### RIPOLL REDORTRA Ruth, SANCHEZ FLORES Eugenia, ROPERO RODRIGUEZ Sandra

#### Introduction

From The "free tabacco commission" in the company we organized a unified campaign for all our centers. It was built on three different comunication levels ( one for our professionals, another for the in-patients and the last one for the general society such as families, visitors,...). The main motto of the campaign was: "quit and win!" to reinforce the positive part of giving up smoking.

### Purpose/Methods

Internal and external communication: Screen savers, occupational health program: "win quitting with us!", internal email, intranet news, placemats in the personnel restaurant, in the general restaurant and on the rooms' trays, information desks with co-oximeter's mesurements, spirometries and exchanging apples for cigarettes, audiovisual cycle, thematic workshops, press note and published articles, TV programmes in our waiting rooms, conferences, cancer association's exhibition, neighbouring company's collaboration (catalan radio and television) with co-oximeter measurements, conference and individual expert help on giving up smoking .

#### Results

All our centers ( 3 Hospitals, 2 geriatric residences, 4 primmary care centers, 3 specialised centers and one social center) unified through all the activities coordinated by the "free smoke commission" More workers joined the quitting program this year (30) than the year before (4). Collaboration between the occupational health department and the pneumology department for helping our people to quit. Collaboration with the neighbouring company, helping 4 workers to give up smoking. Advertising all the activities done that day.

### **Conclusions**

Activities integrated in all our centers for the celebration of the "world smoke-free day" More motivation for workers to give up smoking. To remind and train health workers to give the minimum health warnings about smoking. To raise awareness about the celebration of that day. Improvement of the results thanks to the working in team through the free-smoke commission between the occupational health department and the communication department, and particularly with the support of the Direction.

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Promotion of healthy lifestyles and smoking cessation among the Parma University Hospital's professionals

### VITALI Pietro, CAMPANIELLO Giovanna, FONTECHIARI Simona, MONTALI Francesca, PELAGATTI Sandra, FERRARI Mariangela, VEZZULI Marta, CHETTA Alfredo Antonio, SIRCANA Luca

### Introduction

As regards the application of the smoking ban (Law n.3 of 16.01.2003), in Italy from 2004 and in the years following, several studies have shown a reduction in acute coronary events (with values ranging from -4% to -13% of admissions for myocardial among people under 70 years). The Law's impact on the Italian population health indicators encourages further its effective implementation, especially between health professionals.

### Purpose/Methods

Purpose: - analyze the smoking habits and measure the dependence level (through the Fageström's Test), - explore the tries of tobacco cessation - promoting healthy lifestyles between professionals. Methods: At the Parma University Hospital, from January to April 2013, a questionnaire has been administered to n=914 professionals (CI = 99%) with n=205 (22,4%) that have affirmed to be "smokers" (with a general population of n=3.150 professionals).

#### Results

At the Fageström's Test the 57% has declared to be slightly addicted to nicotine, while the 21% has declared to be in a medium level and the last 20% is resulted belonged to the higher group of addiction. The 64% has declared to have tried to interrupt smoking habits at least once with the 50% has reached an abstinence higher than a year. The smokers have also declared to do less physical activity than not smokers.

### Conclusions

These results will be returned to all professionals, Managers / Coordinators and to other Services; the preventive actions that will be taken are: - Realization of a spread event of the results planned by the beginning of 2014. - Implementation of preventive campaigns dedicated on all professionals, that will be spread through to the Parma University Hospital's intranet site, in order to facilitate the access to services (such as the Anti smoking Centre) and promoting physical activity.

### Comments

The application of a self-reported instrument represents a strategy to increase professionals' attention on health and safety issues. The 23% of the sample has known the Antismoking Centre through the questionnaire.

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### A Study on the Effect of Employees' Smoking Cessation Behavior and Self-Efficacy

### CHEN Chuan-Yu, CHEN Wen-Chun, CHEN Fang-I

### Introduction

In Taiwan's, 20% of all causes of death are due to tobacco-related disease and smoking cessation is an important way to reduce the death rate of tobacco-related disease. Because a hospital's duty is to defend the community's health, possessing the employees of a regular life, health and powerful to compose a creative and energetic organization. Therefore, we investigate into factors to effect of employees' smoking cessation behavior and self-efficacy

### Purpose/Methods

The study on employees' smoking cessation behavior and self-efficacy of a regional teaching hospital and take in the outpatient quit smoking therapy service program. The scopes of subject are the employees of tobacco smoking habit and CO > 6 (74 people), a grand total of 44 men. We use structured questionnaire to collect case data of quit smoking, expecting the result can understand and help the study of employees' smoking cessation behavior and self-efficacy.

### Results

44 employees are smoking. After 3 weeks quit smoking health education, outpatient quit smoking therapy service program and Nicotine Replacement Therapy, 40.91% people quit smoking continuously. The men of younger age, starting to smoke when young, higher cognitive handicap of quit smoking and lower self-efficacy of quit smoking is mediocre in quitting smoking continuously. The marked predictive power variables of continuous smoking cessation behavior are age, daily amount of cigarettes, perceived benefits and self-efficacy of quit smoking.

### **Conclusions**

Smoking is a threat to people's health and an important issue. Smoking cessation will reduce by 50% death risk, cardiovascular disease, cancer and the risk of chronic obstructive pulmonary disease. Most ex-smokers have most serious withdrawal syndrome after they quit smoking a week. According to the study's result, we suggest the hospital administrators can give mediocre ex-smokers a health promotion to raise their self-efficacy of quit smoking, maintaining their behavior of quit smoking to achieve their smoking cessation.

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# The effect on promoting smoke-free work site by community hospital: Taiwan Experience

### KAO Li Chueh, CHIANG Hsiao Wen, JHONG Siou Ling, HSU Cyong Ru, HSIEH Han Sen

### Introduction

It has been proved that smoking does harm to health in many ways, and is also one of the main causes of cancer. According to the survey done by ministry of health and welfare in 2011, 18.7% of the adults have the habit of smoking. Especially in some big work sites, there are even a stunningly high smoking rate (30%~50%) among the employees. It not only cause problem to them but also to the working environment. Currently, general hospitals promote their anti-smoking campaign passively, so the effect of it is relatively low. So we hope by adopting a more active way to promote the idea to community while creating a smoke free work site, the threat of smoking will be lower.

### Purpose/Methods

The cross-field professional teams intervene by providing an accessible and convenient smoke cessation environment. 2. Improve the knowledge, attitude and skill of smoking cessation through methods like seminar, exercise, diet and medication thus improve the rate of successful smoking cessation. 3. A week after the smoking cessation courses, the point prevalence abstinence rate reached 30%. And the continuous abstinence rate was 25 % one month after the courses . We adopted Ottawa charter as our strategy, and chose two work sites that had a smoking rate over 30% to work with. Through the cooperation of cross-field team, we intervene with behavior modifications like experience sharing, encouragement and reward, peer support and self-promise, , and strategies like exercise, diet, relax and medication to motivate their incentive to participate the smoking cessation courses, enhance their recognition and activeness to realize health self-management.

### Results

27 participants take part in the courses. , and most of them (taking up 40.7%) are 41-50 years old. 2. nicotine dependence rate dropped. By adopting the Fagerstrom Tolerance Questionnaire (FTQ), from scale one to ten, the pretest shows 3.1 point while the post-test shows 2 point,.The improvement rate reached 35.4%. 3. The concentration dropped: The CO2 concentration analysis range is 1~20 ppm, and the average pre-test value is 12.04 ppm (moderate smoker). The average post-test value taken a month after the courses is 7.56 ppm (light smoker). The improvement rate reached 37.2%. 4. The perception chart of smoking cessation is scored from one to ten. While the average pre-test value is 8.2±1.09, the average post-test value after four weeks of smoking cessation courses reached 9.0±0.83. The numbers show statistically significance (p=.007). 5. The point prevalence abstinence rate of three months is 37% which reaches 123% of the goal attainment rate.

### Conclusions

Through the active participation from the hospital and the intervention of the cross-field professionals, the idea of smoking cessation in the work site is promoted, and with the support of their superiors, an accessible smoke free environment and culture is created. With the encouragement and support from the peer, the experience sharing, information passing, skill teaching from those who already quited smoking , the subject's incentive of behavior change is enhanced thus shows positive meaning and effect on the perception of smoking hazard.

#### Comments

It takes a long term campaign and resource to prevent the hazard of smoking, and the effect cannot be seen in a short period of time. Therefore while people should have consensus over such issue, the government and medical institute also has to work together. Through the cooperation of professional teams, and active promotion of smoking cessation courses in the work site and school, the right mind set of the people can be built in order to achieve the goal of health for all.

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A survey on staff responses towards the implementation of smoke-free hospital environment policy.

### WANG Wen-Li, HUANG Chi-Ting, TSENG Chian-Wei, HSU Wen-Lin, KAO Ruey-Ho

### Introduction

Recent studies reported a link between smoking and many diseases, which include chronic cardiovascular diseases, respiratory diseases, as well as cancer. In Taiwan, death caused by smoking-related diseases contributed to approximately 20% of overall death, with nearly 20 thousands deaths reported annually. In year 2011, Taiwan established the first smoke-free hospital network in Asia-Pacific, in hope to emphasize on the importance of smoke-free hospital environment among hospital staffs.

### Purpose/Methods

This cross-sectional study is based on "Smoke-free Hospital Workspace Feedback Survey" conducted in 2012, targeted towards the staffs of Hualien Tzu Chi Hospital, Taiwan. A total of 1963 questionnaires were distributed, and 1417 valid responses were received, a response rate of 72.2%.

### Results

This study shows that majority of the respondents are nonsmokers, standing at 91.8%. As for respondents who are no longer smokers, they made up of 5.2% of our study. Only 2.9% of the respondents are frequent or occasional smokers. In comparing the positive responses towards the smoke-free workplace policy, In comparing the positive responses towards the smoke-free workplace policy, mean score for non-smoking staffs is significantly higher compared to smoking staffs, scoring 4.8 (SD=0.5) and 4.6 (SD=0.6) respectively. In hope to assist the staffs who smoke to quit smoking.

#### Conclusions

The staff survey supported the smoke-free workplace policy; most agreed that patient care was easier and that the policy did not lead to an increase in patient aggression. Implementation of a total smoking ban can result in positive health outcomes for patients and staff, and may influence some staff to quit smoking. Staff who smoke have a less positive experience of the policy and require additional support.

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# Session P2.20: Supporting patients to quit tobacco consumption

Study of the Smoking Status of Preoperative Patients in Chidoribashi General Hospital.

### **NAKASHI Takahiro**

### Introduction

Cigarette smoking increases the risk of complications in patients undergoing surgery and even increases risk of perioperative death. Postoperative respiratory complications and poor wound healing in particular tend to be higher in smokers compared with nonsmokers. Therefore, patient undergoing surgery should quite smoking. A patient who encounters a need for surgery could consider this a valuable lesson. This may motivate them to quit smoking and gain the associated health benefits of long-term smoking cessation. As yet, a preoperative smoking cessation program has not been established for patients in our hospital. It is up to their individual physicians to advise against smoking and give smoking cessation guidance.

### Purpose/Methods

We conducted a study of the smoking status of preoperative patients in our hospital and evaluated the effect of preoperative cessation guidance in it's present condition. The study was conducted from November 2013 to April 2014. Patients received a schedule for admission and operation in the outpatient department, they received brief preoperative smoking cessation guidance from their physician. We then confirmed the patient's smoking status at the time of admission.

### Results



Of 10 patients who were smokers, none of them quit smoking before being admitted.

#### Conclusions

This suggested that current smoking cessation guidance had no effect. We need to consider a preoperative smoking cessation program that can be implemented in our hospital.

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### Who quits smoking and who quits trying

### WÄRJERSTAM Sanne

### Introduction

What makes patients who comply with a cessation programme succeed or fail to stop using tobacco is relatively well studied, but all those who give up, or even refuse to join the programme tends to escape attention. In this study we wanted to characterize those who leave or never enter the tobacco cessation therapy at the health-promoting unit. This is a multidisciplinary, highly qualified unit, receiving patients with problems concerning tobacco and physical activity.

### Purpose/Methods

Two counsellors recorded data from 400 consecutive patient referrals, including age, sex and, for patients who completed the treatment, tobacco use 3 and 12 months after the first attempt to quit tobacco. Seventeen patients quit smoking before entering, and 37 were in initial phases of the treatment, and were excluded from analysis. Of the first 209 referred patients, 162 had answered a questionnaire on tobacco use, lifestyle and health, and this information was also analysed.

### Results

Seventy-four patients never entered the programme, 139 left before stopping, 14 shortly after their attempt to quit tobacco. Those who left had higher nicotine dependency (mean±se  $5.5\pm0.2$  vs.  $4.9\pm0.2$  points, MW p=0.033), thought tobacco cessation less important ( $8.3\pm0.2$  vs.  $9.1\pm0.2$  points, p=0.004) , fewer used cessation medications (33% vs. 74%,  $\boxed{2}$  p<0.001) and tended to be younger ( $53\pm2$  vs.  $58\pm2$  years, p=0.050), but there were no significant differences in sex, alcohol use or physical activity compared to those completing the treatment.

### Conclusions

Conclusion: The large group of patients who leave or never start tobacco cessation therapy have higher nicotine dependence, less cessation medication and are less motivated. Therefore, they are likely to be more difficult to treat, and the specialized tobacco cessation therapy should be adapted to address their needs. The fact that so many patients never enrols also indicates a need for clinical interventions from other health care staff, e.g to use motivational interviewing and to offer cessation medication.

#### Comments

Key words: Tobacco cessation, Drop out, Compliance, Cessation medication, Motivational interviewing, Descriptive statistics, FTND, Nicotine dependency

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# Model comparison of tobacco cessation program in Taiwan: study from a medical center in Northern Taiwan

### CHEN Chih-Dao, JU Yu-Ying, TUNG Wei-Chih, HSU Shu-Mei

### Introduction

For the high smoking rate in Taiwan, 35% for men and 4.1% for women (Adult Smoking Behavior Surveillance System), our government launched second-generation cessation program since 2012. The extended program combines medication and counseling which covers both inpatients and outpatients. Smokers can receive subsidy for cessation drugs or free counseling up to 8 weeks, twice a year. Patients can accept both types or choose between counseling only or medication only. The quit rate by different model was interested.

### Purpose/Methods

Patients who score 4 or higher in Fagerström Test for Nicotine Dependence or smoke more than 10 cigarettes a day were recruited in the Department of Family Medicine, Far Eastern Memorial Hospital from January to November, 2013. Quit rate at three-month follow-up were collected include demographic characteristics and times of treatment course. Cessation model was classified as counseling only, medication only and medication/counseling. Chi-square test and student's t-test were used to examine the differences between models.

### Results

Total 1349 participants engaged and 9.3% take second course. 84% were male and mean age was 48 vs 44 years compare to female. 40.4% accept counseling only, 4.5% medication only and 55.1% both types. People who take 2 courses had higher quit rate then 1 course (44% vs 37%). In course 1, quit rate in both types, counseling only and medication only were 36%, 24% and 50%. In course 2, quit rate were 29%, 55% and 48%, separately.

### Conclusions

The results show that most smokers were willing to take both types of cessation help, but still two-fifths smoker accept counseling only. Patients who take 2nd course may have higher cessation motive which response to the higher quit rate. Even though counseling only in course 1does not obtain high quit rate

but also can achieve 24% result in course 1. In 2nd course, higher quit rate demonstrate that good counseling can sustain the determination for smoking cessation.

### Comments

Our study focus on the effectiveness of cessation model as the most expense was supported by health insurance. In Taiwan, NT\$20 health surcharge for each pack of cigarette have been proposed since 2009, double the health surcharge are debating. In order to decrease the smoking prevalence and sustained abstinence, further information could be collected for different model by the following track.

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# Increased Successful Tobacco Cessation After Second Generation Cessation Program in Hsinchu (Taiwan)

### CHEN Tsung-Po, CHUNG Yi-Hsuan, YANG Kuen-Cheh, HSU Fan, CHEN Meng-Kan

### Introduction

The Second Generation Tobacco Cessation Program in Taiwan has been started since March, 2012. Health Promotion Administration in Taiwan offered extra pharmaceutical reimbursement, and extended the coverage from prevailing outpatients to the smoking inpatients and smokers visiting the emergency care.

### Purpose/Methods

For investigating the impact after the initiation of new program, we conducted a retrospective study of participants in our smoking cessation outpatient department from 2011 to September 2013. At initial visit, all participants received evaluations of modified Fagerström test for nicotine dependence and exhaled carbon monoxide (CO) concentration. At three months, participants were followed by telephone for abstinence assessment. The determinants for successful cessation were evaluated by using multivariate logistic regression.

### Results

There were 144 and 249 participants in first and second generation programs respectively. In terms of CO concentration, nicotine dependency and cigarette consuming, there were no differences between two programs. After second generation program, the successful rate increased from 37.5% to 51% (p=0.0097). Drug adherence was better in second generation program (5.2 vs 3.6 wks, P<0.0001). After adjustment for baseline characteristics, the treatment duration was still an independent factor for successful cessation significantly (odds ratio: 1.2, 95% CI: 1.1-1.3).

#### Conclusions

In our hospital, the second generation cessation program increased not only the duration of drug using but also the successful rate of tobacco cessation significantly. Because cigarette smoking leads to cardiovascular disease and increases lung cancer risk in the future, healthcare giver should advocate the new program intensively.

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Enhancing Staff Awareness of Tobacco Harm Can Improve the Successful Rate of Smoking Cessation

### TIAN Jia-Yu, GUO Jreg-Fu, MAO I-Chieh, TU Shih-Te

### Introduction

Enhancing participation and acceptance of smoke cessation among smokers by increasing awareness of the health damage caused by tobacco among hospital staff, and providing clinical smoking cessation services. 204 smokers attending the smoking cessation clinic were surveyed regarding their motivations for quitting smoking. Among these, 56% were advised by the hospital staff to quit smoking. The 3-months abstinence rate was 37.3%.

### Purpose/Methods

In this study, a cross department no-smoking team conducted 10 tobacco harm educational seminar and 3 tobacco harm e-learning sessions for the hospital staff in 2013. 337 staff participated, accounting for 70.5% of the total staff number. Effective advice for quitting and referral were provided for smokers attending the clinic.

### Results

204 smokers attending the smoking cessation clinic were surveyed for their motivation for quitting smoking. Among these, 56% were advised by the hospital staff. This indicated that the provision of advice for quitting and referral by the medical staff of this hospital effectively encouraged smokers to attend the smoke cessation clinic. The 3-months abstinence rate was 37.3%, which was superior to the requirement set by the Ministry of Health and Welfare.

### Conclusions

This hospital continues to promote and implement the no smoking hospital policy. Education on tobacco harm is promoted and provided for the hospital staff to increase staff awareness on the prevention and treatment of tobacco harm effectively. This allows the staffs to advise smokers visiting the hospital to quit smoking, increases the health concept among smokers, enhances



the smoker's motivation for quitting, and encourages the engagement in health promoting behaviors among smokers.

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### Smoking cessation secondary prevention in an acute care hospital.

### RUZ Angels, SERRANO Concepción, PADILLA Catalina, BORRELL Nuria

### Introduction

Tobacco use is the leading cause of preventible illness in our country. It cause many different cancers as well as chronic lung diseases and heart disease. The WHO (World Health Organization) recommends that health workers carry out smoking advice in hospitals, because it can reach a large number of people and it would be necessary for these health workers have training in smoking advice. The minimal intervention smoking cessation can get that 40% of smokers try to quit.

### Purpose/Methods

Goal: Helping smokers who demand help to quit smoking or stay quit during hospitalization. During the first quarter of 2013, the smoking nurse specialist conducted training intervetions for hospital nurses and advanced practice nurses who visit patients with prevalent chronic diseases. The content of the training sessions was based on epidemiology, smoking cessation intervention model and branch circuit to the specialist nurse.

### Results

Twelve training sessions were conducted, between April and December, the specialist nurse received 48 inquiries for smoking cessation intervention. 21 patients (43,7%) had a test score of 4-6 Fagerström and they required nicotine replacement therapy (NRT), 15 patients (71,4%) contemplated quit to smoke, 6 patients did not want to quit smoke but requesting NRT to avoid anxiety during hospitalization. Of the 27 patients who did not require NRT, 18 patients contemplated the possibility of quitting with help after the hospitalization process.

### Conclusions

### Comments

The trainning provided to nurses got more involved in the detection and health education for smoking patients, with the goal to sensitize patients to quit smoke and provide facilities for smoking cessation to patients during hospitalization. The number of interventions for smoking cessation during hospitalization may increase involving other health groups. It is necessary to continue the process begun during hospitalization and evaluate the outcome of smoking intervention by telephone follow-up.

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### Smoking cessation i nine different languages

### **ÅKESSON Eva, MARIPUU Sara**

### Introduction

Smoking increases health inequalities and there is a clear correlation between level of education, socio economic status and tobacco use. People of foreign descent are difficult to reach with ordinary tobacco cessation because of language barrier. Due to language and cultural context there is a need to adapt and modify information and methods for smoking cessation groups. The project is a collaboration between the public health department and Health Center Dalbo, located in a multicultural area in Växjö.

### Purpose/Methods

The purpose is to offer smoking cessation to people who don't have Swedish as their first language. Three persons, who together speak Arabic, Persian, Somali, Bosnian, Croatian, Serbian, Dutch, English and have good knowledge of the Swedish language, are recruited and trained in the method of smoking cessation. The project will run until 2016 and is organized in two steps. Step 1 is to evaluate the work in this area and step 2 is to spread the model in the county.

### Results

The target group in the Dalbo area has been mapped and knowledge about the harmful effects of tobacco has been spread. Persons within the geographical area speaking the languages mentioned above have been offered smoking cessation, in groups or individually. Different organizations where migrants seek support have been informed. Cooperation with public dental care and other arenas also is initiated. Information and discussion groups on tobacco have been conducted with adolescents and adults in different languages.

### Conclusions

When the project is completed we have hopefully gained more knowledge about people who don't have Swedish as their first language. To what degree they wish to bee supported to stop smoking and what kind of support they need in their first language. The aim is to develop a structure for the process of smoking cessation in different languages. Being a migrant puts extraordinary stress on individuals and their families. Through migrant friendly health care stress can be reduced.

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### Gender Difference in Smoking Cessation Clinic with Nicotine Patch : A 3-year follow-up

### HSUEH Kuang-Chieh, CHOU Ming-Yueh, HSUEH Shu-Chun, HUNG Chi-Fa, KU Yan-Chiou, TU Ming-Shium

### Introduction

Women may be at greater risk for smoking-related disease and women have been observed with less success than men in several clinical trials of quitting smoking with nicotine replacement therapy and Bupropion. However, few studies have been reported the difference in long term follow up, especially study about the real world smoking cessation treatment setting. Further studies are required to examine genders differences in available smoking cessation therapy in 'real world' and not just only in clinical trials.

### Purpose/Methods

We included 1,096 smokers between September 2002 and July 2007, all patients were treated with 24-H nicotine patches. Included criteria are smokers >=18 years old, smoking >=10 cigarettes per day, or FTND >= 4 or FTQ >= 25. The treatment program offered participants with maxima 8 weekly sessions in 90 days and the primary outcomes were 7-day abstinence rates at 12 and 36 months without CO validated. If the participants could not be contacted, they were considered as smokers.

### Results

Abstinence rates were significantly lower in women than in men at 36 months (29.8% vs. 16.0%, p=0.001) but not at 12 months (31.9% vs. 24.8%, p=0,11). Men and women differed in a number of baseline variables, in a multiple logistic regression including all baseline variables, gender, cigarettes per day ,liver disease , diabetes, whether the patient tried to stop smoking previously and the duration of patch prescribed were significant predictors of abstinence at 36 months.

### Conclusions

Among smokers seeking abstinence treatment and quit with nicotine patch in Taiwan Smoking Cessation Clinic Service, there is a significant gender difference in 36 months long term outcome.

### Comments

The finding suggests that the lower success rates in women reported in this study could be reflect the result of biological gender differences to nicotine patch in smoking cessation clinic and need more research in the future including other types of NRT, Bupropion and Varenicline.

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# The preference of smoking cessation method among inpatient in health promoting hospital

### HUANG Liang Kai, WANG Wen-Li, HUANG Chi-Ting, WANG Ying-Wei

### Introduction

Hospitalized smokers are often highly motivated to quit and receptive to assistance due to health problems. Initiating smoking cessation services during hospitalization may help more people to start a quit attempt. Evidence proof that pharmacological assisted smoking cessation has a high successful rate. However patient selected different smoking cessation method due to various factors. This study's aim is to understand association between the selections for method of smoking cessation and characteristics of hospitalized patient.

### Purpose/Methods

We recruited patients which have willing for smoking cessation and receive health education at bedside during hospitalization one health promoting hospital from July 2013 to December 2013. Inclusion criteria are age eighteen and above, fagerstrom score for nicotine dependence over 4. We use SPSS software for analyze difference between the patients' characteristics and method for smoking cessation including the motivation and preference method of smoking cessation.

### Results

90 patients are included in which 51 patients received medication for smoking cessation and the other 39 patients preferred quit smoking by their own effort. The results show no significant difference including age, gender, marital status, education, history of quit smoking, cigarette per day, fagerstrom test score, alcohol use, and years of smoking, The only significant difference are those patient with betel nut chewing (P=0.008). Patient with betel chewing didn't want to use medication for smoking cessation.

### Conclusions

Smoking is a major risk factor related to the development of chronic disease and cancer. Study showed that smoking and betel nut chewing in the same time increase the risk 123 times of developing oral cancer. However these high risk groups had the least intention to use medication to quit smoking. Intensive motivation interview for those patients with both smoking and betel nut chewing is needed in the inpatient smoking cessation program

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## Intervention and results of hospitalized quit-smoking counseling services

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#### Introduction

In Taiwan, National Health Insurance will have to pay up to 45 billion NTD per year just to cover up the cost of smoking-related diseases. Clinical medical staffs usually play a crucial status on coming up with a strategy to help the patient to quit smoking. Plenty of literatures points out that the medical personnel can give an advice of quit-smoking to the patient and provide some counseling to motivate the patient to quit smoking. It can effectively increase the rate of patient quit-smoking and decrease the chance to have a relapse.

### Purpose/Methods

The quit-smoking educators carried out an assessment to smoking inpatients one-on-one through hospitalized assessment finding cases. According to a 5As' or 5Rs' strategy for quit-smoking counseling principle to intervene with the case, they employed health education related leaflets and made use of Transtheoretical model (TTM) and stages of change (unintentional stage, intentional stage, preparation stage, action stage, and maintenance stage) to explore the effectiveness of quit smoking. After the cases discharged from hospital a week, the quit-smoking educators called them for an interview to keep track on the symptom and provide health education services.

### Results

There were 104 inpatients who received quit smoking counseling service in 4 months. 14 of them accepted the nonsmoking special clinic service, and 3 of these 14 cases stopped smoking for 3 months. After discharging from hospital for a week, the quit-smoking educators made a call and found out that 15 of them didn't smoke and 16 of them decreased the smoking amounts nearly half. After applying TTM theory, the intention of quit-smoking behavioral change increased to 63.2%. The result showed that they were satisfied with this quit-smoking counseling service through the customer satisfaction questionnaire.

### Conclusions

The quit-smoking counseling service for inpatients was originally executed by clinical nurses, but had no effect. It was amended on July, 2013 to execute by quit-smoking educators, and there were 104 inpatients received it for first four months. Apparently, the active service initiated by quit-smoking educators can help smokers want to quit smoking and increase the smoking abstinence rates or decrease the smoking amounts. Thus, it can be proved that the strategy of quit-smoking counseling service with stages of change can increase patient s' quit-smoking motivation and their smoking abstinence rates.

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### Experience of smoking cessation service for hospitalization patients

### WANG Ru-Hsueh, TSAI Chung-Hung, YANG Yi-Ching, WU Jin-Shang

### Introduction

An admission to hospital provides an opportunity to help patients stop smoking. It is considered as a teachable moment for smoking cessation. The illness precipitating the admission may also reinforce the smoker's perceived vulnerability to the harms of tobacco use and motivate a quit attempt. The aim of this study was to provide counseling and service of smoking cessation for hospitalized patients, and to determine the clinical factors affecting smoking abstinence of these patients

### Purpose/Methods

This study recruit current smokers , who were admitted to NCKUH in 2013 . They were asked about the smoking behaviors and suggested to quit smoking by their caring nurses or doctors in the ward. Subjects who received 15 minutes of smoking cessation counseling and followed at outpatient clinic after discharge. Smoking status was recorded according to the participants' statement. They are defined as quitter if they report they had no more smoking in the past 7 days.

### Results

Totally, 77 men and 6 female were recruited. The mean age is 55.1+13.0 years. There were 4 and 7 cases quitted smoking at 3 months and 6 months after counseling. The FTND score is higher in non-quitter than quitter at 6th month. The quitters of 6 months were found the amount of daily smoking is less than non-quitter, smoking longer than non-quitter, less drinking and betel nut use; both group of quitters' mean age was higher than non-quitter, but they were no statistically significant.

### Conclusions

From this study, we find the higher nicotine dependence may be more risk of failure in smoking cessation. In the clinical for providing service of smoking cessation, we should pay more attention to the patient of higher FTND. However, the case numbers were not enough in this study. And we still follow up the cases persistently and collect more data to explore the result in the future

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## The effectiveness of smoking cessation through group therapy intervention

### LEE Jiun-Shiou, YEH Hsueh-Ping, HO Hsuan, WEI Hui-Chih

### Introduction

Smoking increases the risk of cancer, heart and lung diseases. Taiwan government had increased the grant for the NRT (nicotine replacement therapy) since 2012 to increase the willingness of people to quit smoking and to reduce the smoking rate. Taipei City Hospital not only had the smoking cessation clinics, but also held the group therapy for smoking cessation.

### Purpose/Methods

This program was aimed to use group dynamics to increase the successful rate of smoking cessation. We set up a professional team and invited subjects to join the group of smoking cessation by using posters, brochures and phone calls. The group therapy course was 12 weeks. Using a series of programs and activities to change the behavior and to reduce the side effects of quitting smoking. We evaluated the efficacy by comparing the successful rate among all participants.

#### Results

A total of 124 cases from clinics were included and 23 subjects had the combination therapy (medication and group therapy). Compared with the quitting efficacy of using mono therapy (medication only, 21.2%, 15.2% at 3rd month and 1st year), using combination therapy had higher success rate (27.8% and 19.7%). The combination therapy also had higher satisfaction of quitting process. The higher successful rate of smoking cessation in combination therapy might because of the experiences sharing and encouragement between the participants.

### **Conclusions**

In order to increase the successful rate of quitting smoking, the smoke-free hospitals provided NRT and the smoke-free environment. The supports of the friends and being kept cared by health professionals were also the important keys. Health workers should make a good community network to create easy-access of the community resources, so that smokers who are willing to quit smoking could get better professional smoking cessation services from the networks and to achieve the better healthy life.

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### Effectiveness of Outpatient Smoking Cessation Therapy for 1 year at

### Metropolitan Teaching Hospital in Northern Taiwan

### LI Hsiu-Ching, KO Yen-Kun, HUAN Nuan-Ting, LIN Ya-Hui, FU Mei-Chiung

### Introduction

Outpatient Smoking Cessation Therapy Program, sponsored by the Health Promotion Administration, Ministry of Health Welfare, provide people service of smoking cessation therapy, improve abstinence rate, is still continuing. The program intervention included 8-weeks of nicotine replacement therapy (NRT), 5 fortnightly OPD behavioral counseling sessions, and case manager regular telephone contacted at 1,3,6,12 month after the target quit date (TQD), at the Outpatient Department of Respiratory Therapy & Chest Medicine.

### Purpose/Methods

We report the results of 18 years old and above who had received the outpatient therapy for smoking cessation from October 2011 to October 2012, a Fagerström Tolerance Questionnaire (FTQ) score equal to or greater than 4, or being smoking more than 10 cigarettes per day were the study subjects. The database of smoking-cessation outpatient therapy established by case manager and was used for secondary data analysis, we also analyzed the factors related to successful cessation.

### Results

A total of 120 smokers (80.8% males), mean age was 47.1 $\pm$ 12.6, only 22.5% had chronic disease history, mean FTQ scores was 6.4 $\pm$ 2.4, overall were healthy adults. The abstinence rates (point prevalence and continuous abstinence) 3, 6, and 12 months after the TQD were 40.0% and 33.3%, 30.8% and 24.2%, 30.8% and 20.8%, respectively. Completed 4 times regular telephone contact was higher abstinence rates (P <.05 ). Lower FTQ scores had a higher abstinence rate on 3 months (P <.05 ).

### Conclusions

FTQ scores was significant difference between fail and success group on 3 months follow-up but not on 6,12 months follow-up, the result may be affected by nicotine addiction in early cessation stage and later affected by other factors such as lifestyle or habit. Only a few of the first month reducers (Self-reported reduction of over 50 % in the number of cigarettes compared to baseline) quitted (0 to 1.67%).

### Comments

In the program, cessation should remain the ultimate goal and complete the follow-up program. Individuals who are strongly motivated to quit smoking should be encourage to stop immediately.

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### The policy of increasing service vloume of quit smoking

### LIN Yea-Pyng, LI Su-Chien, LIU Shu-Li

### Introduction

The project aims to establish the policy to enhace the measures of service volume of smoking cessations at clinics in hospitals in estern Taiwan. Data was collected from 1 January 2013 to 31 December 2013. The 400 patients were complete the quite smoking outpatient service.

### Purpose/Methods

1. smoking cessations posters can be made available outside the outpatient clinics of physicians who are qualified for the quite smoking outpatient service. 2. Visiting inward patients who smoke 3. Establishing quite smoking outpatient service and clinics in rural areas

### **Results**

Statistical analysis have revealed that the service volume of the quit smoking outpatient service have increased from 271 patients in the previous year to 400 patients this year after the implantation of the various measures (increment of 129 patients). Increment of service volume was especially significant after attaching the quit smoking posters outside the outpatient clinic.

### Conclusions

We can conclude from our result that in addition to increasing the accessibility of the quit smoking outpatient clinics, providing patients with various reminders and advertisements to quit smoking would encourage patients who wish to quit smoking to visit the hospital for the quit smoking outpatient service as well.

### Comments

The prognosis of various diseases is highly related to smoking habits and reminders to quit smoking could be provided to targeted patients (such as: patients undergoing joint replacement surgeries) to encourage them to quit smoking.

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### **Quit Smoking in Five Easy Steps**

### CHAN Hsin-Lung, LU I-Jung

### Introduction

Quitting smoking may not be successfully achieved at first go, but as long as the correct method is used, even if you fail to quit several times, in the end you'll kick the habit. Primary physicians may wish to follow suit to increase the number of patients taking

treatment at their clinics to quit smoking and their success rate in doing so.

### Purpose/Methods

There are a total of 18 doctors involved in this program. All received training in basic skill to quit smoke and the usage of smoke cessation medicines. Two of which completely followed the five-step method in smoking cessation, 7 partially followed, while 9 did not. We will assess whether such a manner can increase the number of patients in the smoking cessation clinic, as well as increase the success rate of smoking cessation. The five easy steps briefly describe as following: 1. Get to the root of the problem. 2. Adopt a warm offensive. 3. Computer chosen. 4. Continuous pestering and showing concern. 5. Limited time, special delivery.

### Results

This study reviewed the two-year period after opening of the smoking cessation clinic in our hospital. There are a total of 18 doctors involved, 2 of which completely followed the five-step method in smoking cessation, 7 partially followed, while 9 did not. With usage of the five-step method, the number of people who came to the clinic increased by 2.2 fold and accounted for 52% of all those who came for smoking cessation. The number of patients also increased for the doctors who partially followed the five-step method, however, no increase was noted for doctors who did not follow the method.

### Conclusions

It can be concluded that the five-step method can help increase the number of patients in the smoking cessation clinic, as well as increase the success rate of smoking cessation.

### Comments

We also reminds clinics that it's best to prepare a variety of products for quitting smoke, for the patients' convenience in using different methods to quit according to circumstances, and to provide alternative medications in the event of failure to quit.

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### Factors Associated With Weight Gain Following Smoking Cessation

### WANG Hsing-Mei, LIN Mei-Chu, CHEN Hsin-Mei, SHEU Kai-Lun, YEN Chi-Hua

### Introduction

During the course of smoking cessation, changes in weight often affect whether a smoker succeeds or fails. This study was to explore relevant factors associated with weight gain among smokers who achieved successful smoking cessation.

### Purpose/Methods

We enrolled 153 cancer-free patients who were successful in attaining smoke-free at 6-month period after initiation of each therapy between January 2011 and June 2012 at a medical center.Our primary end-point was weight gain over 1.5 kg.The following factors were taken into account that might associate with weight gain:having more than one chronic disease、age≊60 years、coppm >10、FTND score >6、smoking greater than one pack a day and the number of physician counselling sessions.Using Chi-Square test and logistic regression,factors found to be statistically significant were denoted by p<0.05.

### Results

The results found that smoking greater than one pack a day(OR=2.234, p = 0.04) was significant for weight gain. Having more than one chronic disease (OR =1.243, p=0.556), coppm>10 (OR =1.257, p=0.525), nicotine addiction scale> 6 (OR=1.068, p=0.865) and the number of physician counselling sessions(OR=1.119, p= 0.386) had impact on weight gain but were statistically insignificant; on the other hand, smokers older than 60 years of age had reverse effect on weight gain (OR = 0.67, p=0.347).

### **Conclusions**

Our study revealed that those smoking greater than one pack per day had greater (2.234 times) chances of developing weight gain than those having less than one pack per day during smoking cessation services at our hospital. Therefore, emphasis on possible weight gain and education on proper weight control should be continuously given as reminders to heavy smokers by means of taking low-calorie diets and providing exercise prescription.

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Duration of 2G smoking cessation program is positively associated with continued abstinence: a prospective study of two regional teaching hospitals in Taiwan

### TSAI Meng-Hsuan, CHIANG Chien-Hsieh, CHEN Meng-Kan, HUNG Shou-Hung, WU Mei-Yu, CHEN Tsung-Po

### Introduction

Smokers aged 18 and older, who smoke ≥10 cigarettes per day or who score ≥4 on the Fagerström Test for Nicotine Dependence (FTND), are eligible for the Second-Generation (2G) Smoking Cessation Program in Taiwan effective since March of 2012. Smokers can receive individualized counseling and reimbursed cessation medications during the treatment course. The program has substantially alleviated the economical and geographical

gaps. However, the clinical factors for continued abstinence are of limited investigation.

### Purpose/Methods

This study aimed to investigate the clinical factors associated with carbon monoxide—confirmed continued abstinence by week 12 and during weeks 13 to 24. We analyzed a prospective cohort of 411 participants from two regional teaching hospitals in Northern and Central Taiwan from March of 2012 to December of 2013. Multivariate logistic regression analyses were utilized to estimate the adjusted odds ratios (ORs) and 95% confidence intervals (CIs) of the selected clinical factors.

#### Reculte

There were 177 (43%) and 132 (32%) successful quitters at 3 months and 6 months. The duration of smoking cessation program ( $\geq$ 4 weeks vs <4 weeks) was positively associated with continued abstinence by week 12 (OR, 1.66; 95% CI, 1.08 to 2.55; P = 0.022) and continued abstinence during weeks 13 to 24 (OR, 1.78; 95% CI, 1.13 to 2.81; P = 0.014) after adjusting for age, FTND, cigarettes per day, smoking duration and specialty (family physicians vs internists).

#### Conclusions

The duration of individualized counseling and cessation medications in 2G Smoking Cessation Program should be 4 weeks and longer to reach higher continued abstinence.

### Comments

More large-scale prospective trials elucidating the effectiveness of inter-professional smoking cessation program on continued abstinence and relapse prevention are warranted.

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