

## CLINICAL HEALTH PROMOTION

Research & Best Practice for patients, staff and community

# The 24<sup>th</sup> International Conference on Health Promoting Hospitals & Health Services



## "Creating a Culture of Health through Innovation and Partnership"

## **Abstract Book**

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Yale University and Griffin Hospital, Connecticut, USA



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## **Editorial**

Dear conference participants and readers of Clinical Health Promotion,

The 24th International HPH Conference 2016 is the first one to take place in the United States of America. The Connecticut HPH Network, which was established in 2008, and in particular, Planetree Griffin Hospital, and Yale-Griffin Research Center, kindly offered to host the event. Following the proposal and specific expertise of the local host, the Scientific Committee decided to focus this conference on "Creating a Culture of Health through Innovation and Partnership" with specific attention to patients and families as partners. In light of the rapidly evolving movement to engage patients and families in co-design of healthcare research and delivery mechanisms, this focus is indeed timely and relevant.

Culture creation for health by innovation and partnership has to be realized on the following three levels:

- a) In involving clients within direct service provision and thus, furthering the role of patients as co-producers of their health (micro-level)
- b) In involving both, professionals and clients in the organization / hospital (meso-level)
- c) In **involving patient organizations and representatives** together with other stakeholders in planning healthcare delivery systems and policy (macro-level).

Altogether, ten plenary lectures by renowned international experts as well as a panel discussion and a Question and Answer format (Q & A) will address these themes.

In addition, the conference will have a rich program of oral papers, posters and workshops. The Scientific Committee screened over 700 abstracts, which were submitted from 35 countries around the world. Of these, 561 abstracts (79%) were finally accepted for presentation in 40 oral sessions and workshops (108 abstracts), 20 mini oral sessions (64 abstracts), and two poster sessions (389 abstracts). Delegates from all over the world will meet at the conference to present, discuss, and network around topics of HPH. The abstract book of the HPH conference 2016 is again published as a supplement to the official journal of the International HPH Network, Clinical Health Promotion. This ensures high visibility and recognition for the conference contributions, which will also be supported by the Virtual Proceedings that will be launched after the event at www.hphconferences.org.

Furthermore, to raise consciousness for the relevance of involving particularly patients and families as partners, specific HPH Recommendations have been developed throughout the preparations for this Conference. As the last HPH Recommendations – the Vienna Recommendations on Health Promoting Hospitals - go back to the year 1997, the development of new recommendations was considered timely. The New Haven recommendations focus on the themes which were touched upon during the conference (also see scope & purpose) and which are crucial to the local host of the conference. With these, HPH takes the opportunity to encourage and support new ways of thinking and engaging all relevant stakeholders within the network but also more generally within healthcare. The final document will be released on the HPH conferences portal www.hphconferences.org as well as the website of the Vienna WHO-CC www.hph-hc.cc after the conference.

We would like to thank all those who contributed to the program development and to the production of this abstract book: the plenary speakers, panel discussants as well as the participants of the Q & A, the abstract submitters, the members of the Scientific Committee especially for reviewing numerous abstracts, the session chairs, the Editorial Office at the WHO Collaborating Centre for Evidence-based Health Promotion in Copenhagen, and above all, the local host of this 24th International HPH Conference in New Haven (CT), USA.

## Jürgen M. Pelikan & Christina Wieczorek

Vienna WHO Collaborating Centre for Health Promotion in Hospitals and Healthcare c/o The Austrian Public Health Institute, Vienna / Austria

## **Scientific Committee**

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## **Scope & Purpose**

In 2016, the annual international HPH conference will be hosted by the Connecticut HPH Network consisting of Planetree, Griffin Hospital and Yale-Griffin Research Center and will be held on Yale University campus. Thus, the conference will be held in the United States for the first time. The organizing Connecticut network was founded in 2007. Since then, it has made valuable contributions to the international HPH network, not least by serving on the HPH Governance Board and by building bridges between HPH and the strongly patient-oriented Planetree group.

Upon the suggestion of the local hosts, the Scientific Committee decided to focus the 24th International HPH Conference 2016 on "Creating a Culture of Health through Innovation and Partnership" - a topic that relates to the very core of HPH. Already the Ottawa Charter called for the reorientation of health services towards health promotion which can only be achieved by changing organizational culture. Under this general theme, the conference will specifically focus on the following three sub-themes:

## Creating health promoting healthcare delivery systems through innovative partnerships in policy

Hospitals and health services do not act in a vacuum but their possibilities of reorientation are strongly influenced by their context, especially by supportive or hindering legal and financial frameworks that are largely shaped by health policy and healthcare financing mechanisms The conference will specifically discuss the following questions: How can representatives of HPH convince policy makers and financiers to create supportive conditions for health promotion? What arguments are useful to make the case for HPH? And who could be supportive allies in advocating HPH?

## Involving professionals and clients in developing a health promoting organizational culture

In line with the settings approach in health promotion, organizational development has been a major HPH strategy since the founding of the network. Building up on achievements so far as well as on discussions during earlier HPH conferences, the congress in New Haven will especially ask: What can HPH learn from related initiatives such as Planetree or health literate healthcare organizations? How can the participatory involvement of patients and community representatives be used as a lever to further develop HPH organizations? And, how can this help to better fit HP health services to the needs of their target groups?

## Innovative health promoting direct service provision

Every patient is an individual - a circumstance that is increasingly being considered in the emerging field of individualized medicine. But what does this mean for further developing the structures and processes of health promoting service provision? How can professionals be empowered to adapt to the different needs of their patients? What strategies are available to use direct service provision to better promote patients' health? How can these be supported by new information and communication technologies (ICTs) in an ethical way, and what is known about the contribution of health promoting direct service provision to healthcare quality?

## Monday, June 6, 2016

13:00-17:00

**HPH Summer School** 

## Tuesday, June 7, 2016

09:00-16:00

**HPH Summer School** 

## Wednesday, June 8, 2016

09:00-15:30

General Assembly for HPH network and task force coordinators

09:00-15:30

Promoting Recovery and Community Inclusion in Mental Health A preconference workshop presented by the Yale Program for Recovery and Community Health and the Connecticut Department of Mental Health and Addiction Services

15:30-16:30

Meeting of HPH Governance Board

17:00-17:30

Formal Opening

17:30-19:00

Plenary 1 - Creating a culture of health through innovation and partnership

19:00-20:30

Welcome Reception

## Thursday, June 9, 2016

09:00-10:30

Plenary 2 - Creating health promoting healthcare delivery systems through innovative partnerships in policy

10:30-11:00

Coffee, tea, refreshments

11:00-12:30

Oral sessions 1 from abstracts received & symposia by HPH task forces & conference workshops

12:30-13:30

Lunch

13:30-14:00

Mini oral sessions 1 from papers received

13:45-14:15

Poster presentations 1

## 14:15-15:45

Oral sessions 2 from abstracts received & symposia by HPH task forces & conference workshops

15:45-16:15

Coffee, tea, refreshments

16:15-17:45

Plenary 3 - Involving professionals and clients in developing a health promoting organizational culture

18:30-22:00

Conference dinner @ Yale Peabody Museum

## Friday, June 10, 2016

09:00-10:30

Plenary 4 - Innovative health promoting direct service provision

10:30-11:00

Coffee, tea, refreshments

11:00-12:30

Oral sessions 3 from abstracts received & symposia by HPH task forces & conference workshops

12:30-13:30

Lunch

13:30-14:00

Mini oral sessions 2 from papers received

13:45-14:15

Poster presentations 2

14:15-15:45

Oral sessions 4 from abstracts received & symposia by HPH task forces & conference workshops

15:45-16:00

Coffee, tea, refreshments

16:00-17:00

Plenary 5 - To promote health and well-being. How do we move on?

17:00-17:30

Conference closing, award of poster prizes, and announcement of international HPH conference 2017

17:30-18:00

Farewell refreshments

## Saturday, June 11, 2016

09:00-12:00

HPH Newcomers' Workshop Price: 40 US Dollars (including refreshments)

## Plenary Session 1: Creating a culture of health through innovation and partnership

People-centered health services: the WHO perspective and its global strategy

## PRASOPA-PLAIZIER, Nittita

Countries around the world are moving towards universal health coverage (UHC), which has laudable goals of ensuring that people have access to needed health services without financial ruin. With more people accessing services, it is more important than ever to ensure that health systems deliver services that are safe, of high quality and safe and responsive to their needs and sensitive to their preferences and values. The WHO Framework on integrated people-centred health services (IPCHS) calls for reforms to reorient health services, shifting away from fragmented, vertical, supply-oriented models, towards health services that put people and communities at their centre. This is to ensure that UHC is not just about financing, but also safe, quality health services for people. A key strategy to achieving these reforms is through engaging and empowering people. But how do we ensure that people are engaged effectively, appropriately and meaningfully? To address this challenge, WHO is developing the Global framework on patient and family engagement in collaboration with the Gordon and Betty Moore Foundation, a US based organization. This action framework aims to support countries in their efforts to reorient health systems as they move towards achieving quality UHC. Building on the experience of the Patients for Patient Safety (PFPS) programme, WHO will work with partners and collaborators in using the Global framework on patient and family engagement to support countries in building and strengthening capacity of people and health professionals for engagement and empowerment for integrated, people-centred health services.

## Contact: PRASOPA-PLAIZIER, Nittita

WHO headquarters, Programme Manager Patient Safety and Quality Improvement, Lead Patient Safety and Community Engagement, Service Delivery and Safety

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## Advancing patient-centered care: The Planetree Model

## CHARMEL Patrick A.

Griffin Hospital was one of the first hospitals in the US to fully embrace a comprehensive framework supportive of patient and family engagement, when it implemented the Planetree Model of Patient-Centered Care in the early 1990's. The Planetree model has become the most frequently-used framework for creating person-centered excellence, used in over 700 clinical sites in 19 countries. Griffin Hospital uses the ten core

components of the model to engage staff, patients and the surrounding community to partner in improving care quality and the human experience. The hospital is renowned for its healing environment and commitment to health promotion, having been named on the Top 100 Companies to Work For for 10 consecutive years. The organization has garnered top quality awards from the Joint Commission, top patient safety scores from the LeapFrog group, and Gold Designation for Patient-Centered Hospital Care. Mr. Charmel will describe patient-centered innovations at Griffin Hospital, including development of the Yale-Griffin Prevention Research Center, and the results this has had on organizational performance, and health outcomes.

## Contact: CHARMEL Patrick A.

President and Chief Executive Officer of Griffin Hospital 130 Division St Derby, CT 06418, USA

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## Health services meeting community expectations – learnings from 'Down Under'

## **LUXFORD Karen**

This plenary paper will highlight evidence about consumer expectations of health care and working in partnership to drive change. Strategies for hospitals and health care providers to improve consumer-focus, engage staff and foster improved staff capabilities to deliver patient-centred care will be discussed. The benefits of partnering with patient and families to improve quality of care will be considered based on the system-wide Patient Based Care Challenge implemented in NSW, Australia.

## **Contact: LUXFORD Karen**

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Patient Based Care at the Clinical Excellence Commission
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# Plenary Session 2: Creating health promoting healthcare delivery systems through innovative partnerships in policy

Innovative partnerships with patients to change healthcare policy structures - Creating a Patient-Centered Healthcare System

## SHERIDAN, DHL Sue

The current status of global healthcare elevates the need for patient-centered care that is safer, better quality, evidence based, systems based and aligned with priorities, needs and preferences of patients and their families.

In order to achieve truly patient-centered care and better outcomes, it will be important to engage patients and their families across the entire healthcare spectrum, not only as activated partners in self-care, but also as partners in the organizational redesign and governance of healthcare systems, the planning, conduct and dissemination of patient-centered research and the development and implementation of healthcare policy.

In this plenary, Ms Sheridan will share her personal story of a medical system failure that impacted her son and how that resulted in a model of partnership between patients, researchers, regulators, public health officials, professional societies and other policy makers that resulted in changing the standard of care.

Sheridan will also share initiatives that are engaging patients as partners to improve safety, quality and outcomes, including the emergence of Patient and Family Advisory Councils (PFACS) in healthcare systems, the WHO's Patients for Patient Safety Program, who has developed a network of global Patient Safety Champions and the Patient Centered Outcomes Research Institute (PCORI), whose goal is to engage patients as partners in the planning, conduct and dissemination of research projects.

## Contact: SHERIDAN, Sue

Director of Patient Engagement of the Patient-Centered Outcomes Research Institute 1828 L. Street, NW, Suite 900 Washington, DC 20036, USA Plenary 3 - Involving professionals and clients in developing a health promoting organizational culture: Thursday, June 9, 2016, 16:15-17:45

# Plenary Session 3: Involving professionals and clients in developing a health promoting organizational culture

'Care with devotion' - Patient involvement within hospital boards

## **CALIS Cor**

In his key note presentation, Cor Calis takes you along based on his experiences with involving patients within hospital boards. The focus of the session will be on involving professionals and clients in developing a health promoting organizational culture. In the Netherlands, the model of shared governance in which the voice of the employee is heard in the boardroom is generally adapted. The principles of shared decision making have a broad attention among professionals, but are not yet widely applied. The interest in the model of accountable care is growing. This model however, requires a culture in which active involvement of the employee and patient is actively promoted by the executive board. Cor describes the current situation in the Netherlands regarding patient involvement in the boardroom and his experiences as member of the board concerning involving patients in the boardroom. He will present the results of his research focused on the extent to which board members actively involve patients in their choices concerning strategy and management. He will try to answer the question what is necessary to get from a model of patient-centered care towards patient-centered governance, what this requires from an executive board, an organization and its employees. At last, he will present examples of initiatives concerning patient centered governance and will make recommendations to the HPH network and its member organizations in order to create a health promoting organizational culture in which patient centered governance is the starting point and focus.

Contact: CALIS Cor Director Haven Hospital Rotterdam Haringvliet 2 3011 TD, Rotterdam, NED cor.calis@arteriaconsulting.nl

## Health literate healthcare organizations: the role of participation

## ROSOF, Bernard

The premise for today is that the quadruple aim cannot be achieved in the absence of a health literate population (better care, improving the health of the community/population, affordable care and improving the work life of health care

providers). We have adopted the Institute of Medicine definition of health literacy: the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions. Tens of millions of Americans have limited health literacy, a fact that poses major challenges for the delivery of high quality care. Despite its importance, health literacy has, until recently, been relegated to the sidelines of health care improvement efforts. We will discuss new federal policy initiatives to boost health literacy and help the nation move beyond the cycle of costly "crisis care" to "health literate care", using the patient experience as the foundation for change. Patients with limited health literacy have lower quality communication with health professionals, confusion regarding medical terminology, insufficient time to express concerns, fail to receive clear explanations and are less likely than others to use preventative services. We will outline who is at risk for low health literacy, discuss health literacy precautions, and provide a health literacy universal precautions toolkit.

Contact: ROSOF, Bernard National Quality Forum 1030 15th Street NW, Suite 800 Washington DC 20005, USA brosof@nshs.edu

The HPH standard and the Institute of Lifestyle Medicine at Harvard Medical School: Working together to tackle the challenge of NCDs during health reform

## AGUZZOLI, Cristina PHILLIPS Edward

Four main types of non-communicable diseases (NCDs) account for the majority of the mortality and disease burden in the WHO European Region: cardiovascular diseases, cancer, diabetes and chronic respiratory diseases. The root cause for these NCDs are fundamental health behaviors including inadequate physical activity, poor nutrition, diminished stress resiliency and tobacco use. Therefore, empowerment of individuals is essential to improve health outcomes and health system performance. Despite of health care settings establishing favorable governance models for health promotion there is still not enough clarity between the work patterns and the functionality for transferability to different contexts. The HPH network's standards of health promotion provides easy tools for converging the organizational vision and the implantation in a medical setting that promotes health in addition to delivering quality care. Key factors to instill a health promoting culture include the training of health professionals who follow healthy lifestyles and serve as role models for their patients and medical records, which adequately report the patients' health behaviors. Action: We need new governance models for the integrated management of health needs in an era of change; reorient health

## Plenary 3 - Involving professionals and clients in developing a health promoting organizational culture: Thursday, June 9, 2016, 16:15-17:45

services to handle the prevalence of NCDs; be able to transfer the organizational models and strategies on lifestyle according to the logic of rapid benchmarking between structures in different settings; self-assessment with the HPH standards and indicators; make systematic needs assessment and prescription of healthy lifestyles by clinicians who are leading by example. Lifestyle Medicine has the "know how" to restructure the medical approach towards the management of chronic disease and the evidence for impact of the prescription of appropriate physical activity, healthy eating and stress management techniques in patients with chronic disease and in people with metabolic distress. Lifestyle Medicine teaches health professionals to allow patients to take a leading role in managing their health and treatments. This implies important changes in the relationship between patients and health professionals, which still remains largely paternalistic. Results: The Institute of Lifestyle Medicine (ILM) was founded in 2007 at Spaulding Rehabilitation Hospital and Harvard Medical School to reduce lifestyle-related death and disease in society through clinician-directed interventions with patients. The ILM provides training for health professionals wishing to improve their personal lifestyle choices so they can be more effective role models for their patients. The Lifestyle Medicine Education Collaborative "LMEd" launched in 2015 is focused on expanding access to lifestyle medicine education in U.S. medical schools with a concentration on Exercise/Physical Activity, Nutrition, Behavior Change and Self-Care. LMED provides an array of evidence-based curricular resources for prevention and treatment of lifestyle related diseases throughout medical education. The model described in the HPH Self Assessment Standards Handbook effectively generates accountability among different settings. The first standard addresses challenges proposed by Health Reform, to simplify the programming of interventions WHO European health policy: Health 2020. WHO considers citizens as both consumers and producers of health and healthcare. The importance of focusing on the individual's lifestyle, behaviour and readiness for change is emphasised. Integration of the tools from organizational level (HPH) towards the individual level (ILM) in our experience is the best way to manage health care reorientation and the new challenge of chronic disease.

Conclusion: Lifestyle factors including nutrition, physical activity, and stress are critical determinants of health, causing a pandemic of chronic disease and unsustainable health care costs. Integration of HPH standards and Lifestyle Medicine, is a critical next step in changing the culture of healthcare and the health of citizens around the world.

## Websites for additional information:

http://www.instituteoflifestylemedicine.org/ilm-leadership/http://www.LifestyleMedicineEducation.orghttp://retehphfvg.ithttp://www.hphnet.org/index.php?option=com\_content&view=article&id=2349:4th-regional-hph-conference-of-the-regional-hph-network-of-friuli-venezia-giulia&catid=9&ltemid=375

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## Plenary Session 4: Innovative health promoting direct service provision

Preventing Readmissions among Racially and Ethnically Diverse Medicare Beneficiaries

## **TAN-MCGRORY Aswita**

Some minority populations are more likely than their white counterparts to be readmitted within 30 days of discharge for certain costly and complicated medical conditions such as heart failure, pneumonia, and acute myocardial infarction. Addressing readmissions while caring for an increasingly diverse population has become a significant concern for hospital leaders. There is a need for guidance on how hospitals can address barriers faced by minority populations and focus both system-wide redesign and targeted efforts at preventing readmissions. This presentation will:Provide an overview of the key issues and strategies related to readmissions for racial and ethnically diverse patientsDiscuss 7 strategies hospitals can take to reduce readmissions in diverse populationsHighlight a successful case study that incorporates these strategies

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## Plenary Session 5: To promote health and well-being, How do we move on?

Health Promotion: From Clinics, to Culture

## **KATZ David**

There should be no alternative to holistic, patient-centered care. That we are working toward that standard is testimony to historical missteps. Among the many elements conspiring against its routine adoption is the tendency for health care professionals to attend to the health of others, while neglecting their own. If we are to have anything warranting the name 'health care' system, it should be a place where health is promoted - not just by its practitioners, but for them as well. But clinics here are just a microcosm of a culture-wide tendency to neglect health at its origins. This talk will make the case for holistic care, but will go beyond clinics to characterize the culture-wide potential to add years to lives and life to years; the impediments between us and the luminous prize of longevity conjoined to vitality; and some hopeful new opportunities to get there from here, at long last.

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## Session O1.1: Promoting health in maternal and child care

Critical conditions for implementing the Baby-friendly Hospital Initiative in Austria: results of a qualitative interview study

## WIECZOREK Christina, DIETSCHER Christina, DORNER Thomas



### Introduction

The health benefits of breastfeeding for babies and mothers are well-known and multiple studies have proven that the Baby-friendly Hospital Initiative (BFHI) increases breastfeeding initiation and duration. However, in Austria less than 20% of maternity units are officially BFHI-certified. This indicates a gap between current knowledge on health benefits of BFHI and the extent to which it has been implemented within professionals' daily work. Accordingly, the goal of this study was to investigate critical conditions for BFHI implementation in Austria.

## Purpose/Methods

To explore views and experiences of different health professionals, qualitative semi-structured interviews were used. By means of purposive sampling, study participants were recruited within three hospitals in one federal state of Austria. In total, 11 midwives, 11 nurses, 13 physicians, and one quality manager were interviewed regarding the conditions for the implementation of BFHI in Austria. Data analysis followed thematic analysis supported by Atlas.ti.

## Results

The findings indicate that several conditions have to be fulfilled to successfully implement BFHI in Austria. Among these critical conditions are the presence of change agents, the support and promotion of BFHI by the managers of the professional groups, but also the overcoming of professionals' old patterns and the lack of inter-professional collaboration. To facilitate BFHI implementation, interviewees referred to a number of strategies such as continuous participation of professionals, structural changes of work procedures, or inter-professional training and education.

## Conclusions

National BFHI-coordinators and interested hospitals should pay attention to the numerous conditions the study revealed important to facilitate BFHI implementation in Austria. While these are not commonly assessed and addressed in clinical practice and BFHI implementation research, a better understanding of these conditions can contribute to closing the gap between current knowledge and prevailing practices. Furthermore, the conditions and strategies offer starting points for other hospitals that plan to become BFHI-certified as well as for further research on BFHI implementation.

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## Family services: organization model for Italian children's Hospitals

## CELESTI Lucia, CATENA Sara, RAPONI Massimiliano

## Introduction

In Italy the number of structures organized to support family needs embracing the global care of the family, from the first contact with the hospital, as a critical factor for therapy is almost non-existent. Through the constant analysis of the needs of families, Bambino Gesù Children's Hospital in the last few years has emphasized the importance of building a Family Service organization that is careful to protect the patient and his family from the traumatic effects of hospital admission.

## Purpose/Methods

Being sick is tough. It gets even tougher when a child is sick, because there are not only his own needs, but also the ones of his family. Even harder is the moment when the young patient has to move to another city, because of the rarity and complexity of the sickness and a continuity in the family's care is also needed. The patient and his family are constantly at the center of the treatment system.

### Results

Family Services are specifically meant to take care of the child and his family for all the non-clinical aspects of assistance, whatever fundamental: a real "therapy of care". The model we've structured during the last few years starts with the Front Line System and involve Accommodation care, 'Red carpet' and International Patient Service, Child life services, School, Volunteers and Parents associations, Social services, Counseling, Facilities, Customer satisfaction and Speak up activities.

## Conclusions

The keyword for all of these services is humanization of cures. We have tried to create a network, an integrated system for the protection of families and our little patients. As the mother's intuition is a powerful source for diagnosis and therapy, we are striving to rediscover these ancient values, fundamental for an ethical institution such as ours, in order to create a system composed of a plurality of different services committed to curing children and caring for their families.

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## Child life services in Italy

## CELESTI Lucia, CARLEVARIS Maria Carla, RAPONI Massimiliano

## Introduction

Playing is serious business. Nowadays it has been proven that the psychosocial treatment of the child and his family is not an optional measure in the treatment of a hospitalized child, but it's indeed a primary part of the treatment process: creative activities and games are means through which it is possible to

create a connection with the outside world, to express and communicate feelings, control situations, exchanging roles, express aggressiveness.

## Purpose/Methods

During hospitalization, the help we give the child to cope with their fears and needs, also means supporting the family and the health operators. The service has two main targets: to offer children and parents care and games for entertainment and relaxation and, at the same time, a way to express and elaborate fears, doubts, worries and negative emotions linked with hospitalization. The hospital's playgrounds saw more than 30,000 children and teenagers each year

### Results

For this purpose, there is a plan of activities, diversified in relation with different ages and contents: spontaneous and guided games, laboratory activities, creative use and familiarization with therapeutic procedures and potentially disquieting objects used in the hospital, more specific activities of art-therapy, thematic laboratories and guided imagination laboratories. Individual interventions are also done at the bedside in Intensive Care Units.

## **Conclusions**

The Child Life Specialist/Professional Educator is an expert, qualified to help children facing the stress and fear of sickness and hospitalization. Training for Professional Educators is essential to ensure the cure and rehabilitation process; Italy has recently recognized the key role that these educators play in rehabilitation teams.

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Minimize children's pain and anxiety with a 4-step protocol to manage needle phobia and procedural pain.

## MANGIONE Andrea, NASSER Dina, ARMINGTON Caroline, DOLIDZE Khatuna

## Introduction

This presentation describes the successful implementation of a 4-step protocol to minimize procedural pain and needle phobia. The site is Augusta Victoria Hospital (AVH) in East Jerusalem, Palestine. The patient population is oncology, hematology and nephrology. Team leaders include a public health nurse from Palestine; a health psychologist from Georgia and child life specialists from U.S.A. This protocol is a part of a larger pilot plan to implement rights-based child and family-centered healthcare practices throughout pediatrics at AVH.

## Purpose/Methods

Representatives from all stakeholder groups completed the "Assessment Tools on Children's Rights in Hospital and Health Services" by Task Force HPH-CA 2012. Consensus was to immediately develop a plan to minimize the pain and suffering associated with needle sticks. Education and clinical supervision supported the implementation of a 4-step protocol including:

Play, Preparation, Comfort Positioning and Emotional Support. Health professionals along with patients and families helped develop a picture book that demonstrated comfort positioning.

### Results

The use of the 4-step protocol resulted in significantly less procedural pain and suffering. Patients reported less pain and anxiety and demonstrated less combative behavior. Staff reported less stress and frustration and a noticeable improvement in patient compliance. Although needle phobia is as prevalent here as elsewhere, both staff and patients and families appeared engaged and empowered. On day one, staff reported that 90% of patients appeared to be only mildly anxious and in fact, were smiling.

## Conclusions

The success of the 4-step protocol was a welcome surprise to all stakeholders. One pediatrician said that he was skeptical until he heard a lot of laughing and no screaming. To deliver compassionate healthcare that supports the patient and family is a benefit to all stakeholders. As the pilot program continues, long-term results will be measured. Guidance on the rights of the hospitalized child is gratefully credited to Task Force HPH-CA.

## Comments

Should this abstract be selected, it is our hope that all the authors will be able to attend the HPH Conference. Given the political uncertainties or possible travel restrictions, we ask for your understanding if that is not possible.

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## Identifying Disparities in Pediatrics: Sample Practices for Data Collection

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## Introduction

In 2011, the US Census Bureau reported that for the first time ever 50.4 % of children in the US under the age of 1 were minorities1 and 2014 data indicated that the child population is projected to be a majority-minority in 2020.2 With the changing demographics of the pediatrics populations in the US, health care organizations are looking for guidance on how to collect data to understand and address the root causes of disparities for racial and ethnic minorities.

## Purpose/Methods

A group representing nine pediatric hospitals and two hospitals which provide services to both adult and pediatric patients, formed the Pediatric Health Equity Collaborative (PHEC) with the goals of establishing sample practices, lessons learned, and recommendations for the field with regard to race, ethnicity, language, and other demographic data collection in pediatric care settings. Human centered design methods were utilized to facilitate theme development and "brainstorming". These are a group of tools that facilitate constructive, innovative discussion and content consensus.

### Results

The group selected 6 final data collection domains for the paper; caregivers, race and ethnicity, language, sexual orientation and gender identity, disability, and other social determinants of health. The group defined the domain, established a rational for collection, identified the unique challenges for data collection in a pediatric setting, and developed sample practices.

## **Conclusions**

A very thoughtful approach should be taken by organizations when considering what data to collect and for what purpose. There is not one approach that will work for all organizations when collecting race, ethnicity, language and other social determinants of health data. Similar to cultural competent care, each organization will need to tailor their data collection based on the population they serve, the financial resources available, and the capacity of the electronic health record.

## Comments

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## Session O1.2: Creating a culture of health through Innovation & Earth & Earth

Creating a culture of health promotion through of the training courses

## SANTIÑÀ Manel, JUVINYÀ Dolors, MONTEIS Jaume, SUÑER Rosa, SIMON Rosa, PEREZ Anna Carol, CASALS Carla

## Introduction

Introducing clinical health promotion methods implicate a cultural change in the healthcare organizations, mainly in the

hospital organizations for this reason in necessary to plan an strategy that help to this objective. In the case of the catalan hospitals one of the strategies was offer online training in health promotion. In this communication we present the recent experience in this topic.

## Purpose/Methods

The HPH Catalalunya network elaborated and developed a basic course of concepts of health promotion. To do this work we had the help of one partner with expertise in online training courses, the Unió Consorci Formació (UCF), The basic curs was composed of 5 these modules: 1. What is Health Promotion 2. The Health Promotion in the healthcare organizations 3. The implementation of health promotion in the healthcare organizations 4. The HPH Catalalunya- Network 5. Health literacy In the last trimester of 2015 we made the first online course with the participation of 80 students of different hospitals. At the end of the course the students had to answer an opinion survey about it.

### Results

60 of the 80 students of the health promotion course approved it (75%); 3 (4%) not approved and 17 (21%) not finished the course for different reasons (not time, difficult to follow it). The majority of the students (82%) said they were very satisfied or satisfied with the course.

## Conclusions

Develop training tools in health promotion could be a very good strategy to help to implement health promotion concepts and methodology in the healthcare organizations.

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## Creating a culture of health and happiness through collective volunteering

## SHEN Szu-Ching, LAI Ning-Sheng, CHENG Ya-Ching, CHEN Chieh-Rung, CHANG Tzu-Chun, CHANG Tang-Wei, HO Joni

## Introduction

An organization regulates the daily work of its employees through a code of conduct, ethical standards, and systems of time and attendance, overtime and work shifts, and holidays and leave. However, these rules do little to accomplish the important goal of enhancing hospital workers' psychological well-being and capacity for happiness. Charitable volunteering is a proven effective way to gain happiness. Here, the subject of building a culture of psychological health and happiness among workers through collective volunteering is examined.

## Purpose/Methods

The purpose was to cultivate the practice of collective volunteering among team workers and create a cultural environment of health and happiness. In 2011, an administrative unit in the hospital asked three teams of staff members to plan

innovative, joyful collective volunteer activities. Each team set the annual volunteer goal for its department, designated an annual volunteers' day, and carried out the volunteering on weekends together with family members and top managers. News media reporting publicized the charitable activities.

## Results

Three large-scale collective volunteer events were conducted per year, with over 40 people participating per team per event and over 120 person-times of charitable volunteering per year. The activities included beach, park, mountain, and community environment cleanups; visits to orphanages, homes for the disabled, and hospices; housework teaching; waste recycling; and public preaching on environmental protection. The administrative unit generated about 2600 total hours of volunteer service per year, including over 15 extra hours of self-initiated volunteering per staff member.

### Conclusions

The best way to achieve happiness is one that can be turned into a habit. The staff members begin to enjoy the challenge of collective volunteering, which causes them to self-initiate even more volunteering, experience the happiness of giving, recognize their self-worth and life values, and develop a great sense of well-being. The joy and atmosphere of collective giving effectively turn volunteering from a passive activity to a habitual practice to a manifestation of a culture of joyful charitable volunteering.

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## Supporting Victorian Health Services in Prevention - spreading the innovation

## WARNECKE Joanne, CORBEN Kirstan, LAUGHLIN Denise

## Introduction

Victoria is spreading innovation through its health services with a goal to strengthen prevention and benefit the health of employees, patients and whole of community. Building upon its achievements in other place-based settings, the Victorian Government is partnering with one of its leading health services, Alfred Health, to drive practice improvement across the sector. Leadership, innovation, safe to fail experimentation and implementation at scale are key features of this initiative.

## Purpose/Methods

Aim: To drive population health improvement across Victoria's health system in collaboration with leading health services. The Victorian Government engaged Alfred Health as a formal partner to embed strong sector leadership in facilitating a phased whole of system change. Strategies spanned: Senior leadership engagement; communication; coaching and consultancy; exchange and networking; local small-scale trials leading to broader implementation and at scale; cultural development for learning, sharing and innovation.

## Results

This initiative has built strong awareness among health services and senior leaders, regarding the opportunities to integrate prevention. High level collaboration has been achieved through partnerships. Existing networks are realigning to support this prevention movement. A number of small-scale innovative experiments have been implemented across health services. Fifty four per cent of Victoria's health services are engaged in a health and wellbeing workplace initiative. Strong support is present to develop a broader framework engaging health professionals in preventive health practices.

## Conclusions

With a strong sector leadership approach, supported by a mix of formal trials, less formal narratives and applying the processes of scale, health services within Victoria have demonstrated increased engagement in prevention. Continued effort over coming years aims to see prevention being recognised as a core function of health services, in addition to their traditional roles of treating the outcomes of illness, disease and injury.

## Comments

Policy context: The current Victorian Public Health and Wellbeing Plan 2015-2019 states: people-centred approaches – which focus on building strong partnerships between health services and other networks, and emphasise prevention, empowerment, education and health literacy.

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## Touching and Saving a Million Lives through Best Practice Benchmarking

## **BAGAMAN** Teresa

## Introduction

We wish to share The Medical City Story and how it touches and saves a million lives through Best Practice Benchmarking. This paper recently won First Place in the 4th Global Benchmarking Competition last December 17, 2015 in Dubai, awarded by the Global Benchmarking Network. The judges were Innovation and Quality experts from Germany, UK and Bahrain. TMC is a tertiary care hospital with 48 years experience, five network hospitals and 37 outpatient clinics in the Philippines, Guam and Dubai.

## Purpose/Methods

The purpose is to show how TMC creates a Culture of Health through Innovation and Partnerships with its Patients and Physicians/Employees by benchmarking global best practices. TMC will show maturity levels using four perspectives namely: Leadership Commitment, Pervasiveness of Benchmarking, Formality of Benchmarking and Results Achieved. Having consistently maintained its Joint Commission International Accreditation from 2006 - 2015, TMC has matured in the use of Best Practice Benchmarking and is a benchmark and role model in the Philippines and Asia.

## Results

TMC won Gold awards for Hospital Infection Control, Patient Safety, Mother-Baby Friendly Hospital Campaigns from Asian

Hospital Management. TMC was accredited 4 times by the Joint Commission International(JCI). TMC's CEO won the prestigious 2015 Juran Medal Award for his Leadership Commitment to Quality. TMC effectively adapted best practices from global organizations such as World Health Organization, Center for Disease Control and JCI since 2006. TMC benchmarked Yale University's Center for Emotional Intelligence RULER approach which improved its culture of innovation/partnership/sharing.

## **Conclusions**

One effective way to create a Culture of Health through Innovation and Partnership is through Best Practice Benchmarking. TMC benchmarked Healthcare industries e.g. Mayo Clinic, JCI, WHO, Planetree awarded organizations and also in others for Patient Experience/Partnership/Employee Engagement/ Change Management such as Yale Center for Emotional Intelligence, IBM. TMC's unwavering commitment to excellence in health care is best expressed by CEO Dr. Bengzon: "If health is a fundamental human right, then it must also be a fundamental responsibility."

## Comments

TMC won the Global Benchmarking Award over other finalists (Singapore/India/Dubai) in 2015 at Dubai. This award was given by Global Benchmarking Network founded in 1994 by Benchmarking Center representatives from Germany, Italy, Sweden and US with 31 member countries. This award recognizes organizations that show how benchmarking is an integral part of their organization's improvement/innovation drive. Benchmarking, learning from the experience of others, is a powerful method for breakthrough thinking, innovation/improvement and for delivering exceptional bottom-line results.

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## Whole Person Care: Integrating Spiritual Care into Health Systems

## PUCHALSKI Christina, VITILLO Robert, GRAHAM Angela, JAFARI Namjeh

## Introduction

Health is more than absence of disease. It is the ability of patients to adapt and find meaning even with disease. Current medical models are problem oriented and disease focused. Holistic models would support the total health of the patient. We describe a whole person model based in a biopsychosocial spiritual framework with spirituality broadly defined as meaning, purpose and connectedness. Spiritual care improved patient and provider outcomes. However health systems are still uncertain how to integrate spiritual care.

## Purpose/Methods

To address this emergent need, four ground-breaking consensus conferences were held. Using Delphi technique, participants developed and recommended new holistic standards of care. Built upon those recommendations, five working groups in the domains of Clinical Care, Policy, Research, Community Engagement, and Education through a consensus process

developed strategic recommendations and guidelines to implement spiritual care into health systems. A Call to the World was formulated by the group that formed the basis of the mission and vision of GNSAH.

## Results

GNSAH was established to promote the transformation of health systems through partnerships with individuals and organizations which are engaged in projects in the five domains to further integrate interprofessional spiritual care as an essential aspect of health. GNSAH members published an article to acknowledge WHO for passing Palliative Care Resolution in 2014. The GNSAH serves as the advisory to Ad Hoc Committee for the WHO Palliative Care Resolution. A film the GNSAH and the CALL to the World was produced.

## Conclusions

GNSAH is a leading a movement to inspire change, promote whole person care and support compassionate health systems globally. To date we have 172 members from around the world. To transform the healthcare system, the current patient-centered model of care will not suffice. The Whole Person model of care – more holistic and integrated in its approach – values patients, families and clinicians with the same share goal of improved patient experience and creating a culture of health.

### Comments

The GNSAH co-chairs are Christina Puchalski, MD, FACP, FAAHPM is Director of GWish and professor of Medicine at GWU, and Rev. Robert Vitillo, MSW works for Caritas Internationalis as Head of Delegation to the United Nations in Geneva and Special Advisor on HIV/AIDS and Health. The GNSAH is an important model for interdisciplinary collaboration for innovative healthcare changes globally. GNSAH is linked with major national and international policy and healthcare organizations. We welcome partnership and collaborations with many diverse groups.

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## The partnership to adopt 'HPH indicators' into governmental assessment system and its effect

## J ANG YUNHEE, LEE DONGWON

## Introduction

Although the Korea HPH Network Office advised its members to submit HPH self-assessment results annually, only a small number of hospitals took action. As a result, the Korean Network requested Seoul Metropolitan Government to include HPH relevant indicators in Seoul Metropolitan Hospital Assessments system, and then it was adopted in 2011. In 2015, the Korean HPH Network Office cooperated with Seoul city and actively participated in the assessments of health promoting hospitals. This research is designed to determine the effectiveness these partnerships had on the management of HPH.

## Purpose/Methods

We requested 2014 HPH Self-assessment results of all members and cooperated with the Seoul Public Health Policy Institute to special review on HPHs located in Seoul. the National HPH coordinator of Korea participated as the examiner and assessed it on the basis of the four categories - 1. Whether the hospital adopted HPH policies 2. Whether the hospital is a member of the international HPH network 3. Whether the hospital is planning/executing specific HPH related plans 4. Whether they perform regular assessments and monitoring – and gave them scores between 4 and 0. Finally, the Korean HPH office collected the assessed data and analyzed it and Seoul Metropolitan government awarded hospitals that showed high performances.

### Results

After the first Seoul metropolitan hospital joined the HPH network in 2009, all 9 metropolitan hospitals, excluding 9 mental hospitals, joined the HPH network in 2014. In 2015, there was a 40% increase in hospitals that submitted self-assessment results (12), compared to those in 2014 (8) out of the total 25 members. Amongst these 12 submissions, the Seoul Metropolitan Hospital exhibited the highest participant rate of these self-assessments at 59% (7). According to the analysis of collected self-assessments, standard 4 (Promoting a Healthy Workplace) scored the highest while standard 3 (Patient Information and Intervention) scored the lowest.

### Conclusions

After HPH relevant indicators were included in the system of Seoul Metropolitan Hospital Assessments, all metropolitan hospitals showed increased participation in HPH program. It shows the government's political support greatly affects hospital management and implies that the national network should continue to cooperate with a government organization in order to develop HPHs. And the HPH office reflected the self-assessment results in the 2016 Korea HPH action plan to provide appropriate resources, education, and consultation to the members. This cooperation is seemed to be an effective way to upgrade the quality of self-assessment from just self-monitoring to making changes in actual resource and contents of HPH action.

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## Session O1.3: Health promoting organizational governance and delivery of care

The importance of coping and hope for patients with critical illness

## KRISTENSON Margareta, ORWELIUS Lotti, FREDRIKSON Mats, WALTHER Sten, SJOBERG Folke

## Introduction

Coping ability is central for health and has been shown to be associated with better health-related quality of life (HRQoL) in

patients with chronic disease. If the individual cannot cope, this can lead to feeling of hopelessness. In population-based studies, low coping and high hopelessness are independent predictors of risk for disease and of mortality from any cause. However, coping ability and hopelessness after critical care have never been examined as risk factors for decreased HRQoL or mortality.

## Purpose/Methods

To assess the independent associations between the psychological factors coping ability and hopelessness with HRQoL and their effects on mortality after discharge in patients who have been treated in an intensive care unit (ICU). In a controlled, multicenter study, data were collected from three combined medical and surgical ICUs in Sweden (n= 980, age 58 (SD 18)). Coping ability, hopelessness and HRQoL were evaluated using validated scales. Questionnaires were sent to patients at home 6 months after discharge from ICU.

### Results

After controlling for the effects of age, sex and other confounding variables, low coping ability and high hopelessness related to poorer HRQoL for all subscales (except for coping to bodily pain). Effects were in the same range as "pre-existing disease" for physical subscales, and stronger for social and mental subscales. After control for the same set of variables, including pre-existing disease, high scores for hopelessness also predicted higher mortality up to 3 years after discharge from ICU (p< 0.001).

## **Conclusions**

Coping ability and hopelessness showed significant and independent effects on HRQoL after ICU care and on survival 3 years after critical illness The results illustrate the importance of the psychological state of critically ill patients at ICU. A personcentered care emphasizing the patient as a partner in care and using empowerment strategies with health promoting encounters and health promoting care environment are therefore important also in ICU, the most high-technological part of health services.

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## Patient and Staff Collaboration to 'Change the Conversation'

## HANKINSON Mary Therese, STARACE II Nicholas

## Introduction

As a Planetree affiliate/Center of Innovation for Patient Centered Care, VA NJ Health Care System identifies strategies for whole health implementation across our health care system. Whole health is an approach that empowers self-healing mechanisms to co-create a personalized, proactive, patient-driven experience. This presentation describes a collaboration between patients and staff to implement whole health and enhance shared decision making through simulation education resulting in a conversation shift from "What's the matter with you?" to "What matters to you?"

## Purpose/Methods

Whole health is a patient centered approach that affirms the importance of partnership and shared decision making between patients and their providers. Our facility recruited Veteran Advisors/Patients to participate in the development of a simulation education program to advance whole health and shared decision making concepts. The Veteran Advisors serve as standardized patients in simulation education conducted for medical staff and residents. Simulations provide live video feed during the scenarios followed by structured debriefing and feedback using a standardized form.

## **Results**

Simulation scenarios enable patients the opportunity to provide feedback to providers regarding their satisfaction and extent to which whole health strategies were utilized, pros and cons for treatment were discussed, and if providers asked patients which choice they thought was best for them. Changes in patient satisfaction scores for shared decision making were analyzed from the VA national survey. The partnership between patients and staff facilitates continuous feedback to enhance a culture of whole health and shared decision making.

### **Conclusions**

Simulation education model facilitates a sustained change in the conversation between patients and providers. Prior to this project, patients were unaware of strategies to engage with providers in whole health and shared decision making, hesitant to interrupt providers, tentative about asking specific questions, and uncertain about presenting different whole health options. Simulation program has resulted in increased patient satisfaction with shared decision making scores which are higher than the VA national average for bed sections in which providers participate.

## Comments

Presenters: Mary Therese Hankinson is a staff member at VA NJ Health Care System. Nicholas Starace II is a Veteran Advisor who participates in simulation education at the facility. He is also a Screen Actors Guild (SAG) member.

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## Session O1.4: Environmentfriendly healthcare

Using wastewater reclaimed system to increase protect environment

## LEE Chen-Lin, CHANG Chin-Chi, HOU Chun-Yen, LIN Ming--nan

## Introduction

According to the principle of WHO, the healthcare institution can play a leadership role in mitigating the effect of climate change. As the result showed that the medium-large hospital consume 820 metric ton of top water per day which is especially large consumption compared to other business building type. It is obvious that top water is very important to hospital's livelihood.

Why the hospitals were big consumer of top water for a number of reasons? It's using reasons including public hygiene, prevention of infection, sterilization and irrigation gardens. Generally speaking, public toilets and irrigation gardens have a part proportion of top water consumption.

## Purpose/Methods

We should notice that how to effectively use and save the water resource. First, we using Dalin Tzu Chi hospital built-in the wastewater reclaimed system to collect all of non-hazardous waste water form daily activity. Follow the procedures, it is including application of solid-liquid separator, aerated grit chamber, sand trap, disinfect and sand filter. Water as cleaned then limit to public toilets and irrigation gardens use only. In order to ensure the water quality and within the norm of the government. We implementation reclaimed water examination periodical. Second, we install sensing faucets for reducing flow and educate d the patients, visitors and staff about used water wisely.

### Results

As result showed that implementation reclaimed water system which using in public toilets and irrigation gardens can reducing top water usage at least 220 metric ton per day. The 125 set sensor faucets which reduced at least 30 metric ton per day. In combined, total amount 90,000 metric ton of top water was saved in 2014. According the data that we reduce carbon dioxide emission 17460kg were calculated based on a conversion factor of 1.94 kg (10 metric ton) and same as planting 3880 trees.

### Conclusions

For the present, let us concentration our attention on aspect of water resource management. Reduce the top water consumption is important from hospital's employees who are concerned about sustainable usage. Reclaimed water system and install water-saving devices implemented as part of water conservation also translate into improved environment quality.

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## What is health care for?

## **COHEN Gary**

## Introduction

Governed by a moral imperative to "first, do no harm", our health care system is entrusted to ensure the health and wellbeing of the individuals and communities they serve. Yet health care represents all of the contradictions of an industrial enterprise powered by fossil fuels, toxic chemicals, and unhealthy food that contribute to a range of diseases including cancer, respiratory disease, and diabetes.

## Purpose/Methods

Hospitals, indeed our entire health care system, can do better. Hospitals need to become anchors for community wellness and sustainability rather than cathedrals of chronic disease. We need to move beyond our current expensive and ineffective system to restoring the broken relationship between our health and the environment.

### Results

Hospitals around the world can be powered by renewable energy and inspire the us to follow their lead. Together we can help solve the climate crisis, clean up the air, and support healthier communities at the same time. Hospitals can weave together a food system that supports our health and the planet's health. Hospitals can defend the rights of our children to be born toxic free, while protecting our rights to clean air, clean water, and safer products.

### Conclusions

Health care is the only part of our economy that has healing at its mission. Rather than contributing to the destruction of the environment that in turn exacerbates poor health outcomes, the health care sector has a moral responsibility to champion a sustainable and equitable vision of health.

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# 82% Reduction of Biomedical Waste from 2014 to 2015: Medical Plastic Waste Recycling Program in Hemodialysis Unit

## WANG SHU-HUI, PAN YING-FANG, YANG PO-HSUN, CHUANG SHU-TING, CHIEN SOU-HSIN

## Introduction

Every year, 20 thousands of Taiwanese health care institutes generate more than 120,000 tons of wastes and 24% are hazardous biomedical waste. Biomedical wastes contain high percentage of Polyvinyl Chloride (PVC), which is the ingredient used to make IV bags, catheters, blood bags and many other medical equipment. Dioxins and other hazardous pollutants are produced during incineration. Therefore, by increasing efforts of medical waste recycling, we can protect our environment.

## Purpose/Methods

On average, Taichung Tzu Chi Hospital's hemodialysis room generates 2,500 kg biomedical waste every month including 75% of plastic that is recyclable. In collaboration with a certified recycling company, non-hazardous medical plastic wastes (e.g. artificial kidney, IV bag, tubing, plastic syringes) are collected in yellow bags for treatment. After auto-claving, the waste is sterilized, chipped into pieces and used as secondary materials for industrial purposes.

## Results

Our hemodialysis unit served 35,696 person-times during December 2014 to October 2015. Total of 23,683 kilograms of plastics waste were collected. Through recycling, we saved TWD94,700 of the cost on waste treatment. The monthly average generated of biomedical waste is reduced from 2,458 kg to 439 kg (82% of reduction) also equivalent to 5 metric tons of CO2 emission reduction every month.

## Conclusions

To increase the recycling of medical plastics, we should separate infected and uninfected waste, develop adequate infrastructure and educate staff to follow guidelines of medical wastes. In this study, the amount of biomedical waste in hemodialysis unit reduced from 0.8 kg-person-day to 0.14 kg. In Taiwan, there are more than 5.3 million hemodialysis events per year. If all units practice medical plastic wastes recycling, we will reduce 3.5 million tons of CO2 emission.

Contact: GAN Cai Ru National Taiwan University XiaTanDi, ChiaYi, TWN

## Session O1.5: Comprehensive workplace health promotion

The health of a healthcare workforce: so many factors!

## **CORBEN Kirstan**

### Introduction

A leading health service in Melbourne, Australia, Alfred Health is committed not only to the provision of world class treatment services but also the creation of a strong prevention system. With a workforce of more than 8000, Alfred Health recognises the impact, positively and negatively, the workplace it provides can have on its people. With strategies spanning physical activity, prolonged sitting, active travel, smoking cessation and healthy eating, Alfred Health has demonstrated some outstanding innovations with potential for widespread adoption.

## Purpose/Methods

To create a workplace environment and culture that actively supports the health of employees. In response to the results of WorkHealth checks and other staff consultation processes a range of strategies have been implemented to improve physical and mental health. Initiatives have included the provision of new and improved services, development of programs tailored for identified needs, investment in capital projects to permanently improve the physical environment. All have been supported by comprehensive communication strategies.

## Results

High profile employee achievements relating to weight loss, organ transplantation, experiences with cancer or chronic diseases and work-life balance. Active travel participation increased and experiences improved following a new, awardwinning Active Travel Zone with 300 secure bike parks, lockers, showers and change areas. More than 500 employees reduced their sitting time by 94% after the introduction of sit-stand solutions. Retail settings increased the availability of 'most healthy' foods / drinks (53% in 2015 compared to 30% in 2010).

## Conclusions

Alfred Health has invested strongly in creating and sustaining a healthy workplace to benefit the health of its current and future employees. With a number of strategies responding to latest evidence and others pushing innovating to generate new knowledge, a broad range of strategies have been implemented

with high feasibility and high effectiveness. These initiatives are of benefit to and valued by employees. New efforts are underway to more actively support staff who smoke to quit.

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## Happy service, happy achievements

## JHAUNG Yi-Ling, STAWASZ Mariola Zofia

### Introduction

"Love God, Love People & Respect Life," this is the core values statement of the Cardinal Tien Catholic Hospital (CTH) which expresses the fundamental purpose of spreading God's love through excellent medical service and holistic care for the patients, their families and the medical staff. CTH organized special activities for medical workers which would enable a better understanding of the core values. This better understanding is the key to identify more deeply with the Christian Spirit of love and by integrating it to the behavior and skills of the medical personnel they would find the core values enduring and actionable.

## Purpose/Methods

CTH is a medium-sized hospital with more than 1500 employees. In February 2013 CTH opened new branch at Ankang district, New Taipei City. The new employees and the newly appointed management of the innovative hospital branch had to face an escalation of challenges and pressure. The most profound question was "How to integrate the mission of the hospital and the core values to be able to fulfill the services?" The Pastoral Care Department of CTH designed a curriculum and guided a philosophy course on the holistic care concept enlightening the fundamental vision of humanity from the Christian point of view. There were eight intensive, 90-minute courses provided between March and June in 2015. Several distinguished lecturers were invited to give a talk on their subjects such as leadership, management, spirituality, medical ethics and other medical fields. There was open question surveys ran after each course.

## Results

An average of 113.6 employees attended each lecture however the expected number of medical workers had been approximately 219. The surveys proved that the highest satisfaction was at the three points: richness of content (89.07%), offered new knowledge and ideas (87.84%), and the need for this kind of activities (87.55%).

## Conclusions

The research clearly showed that newly appointed employees are in a need for knowledge and support to face innovation challenges. The experiences gained thank to the courses empowered and gave a new self-confidence to overcome difficulties, achieve goals and experience happiness and satisfaction at work. These courses incorporated with the employee personal growth and development system help to find deeper meaning of the everyday job, so that employees no longer work "just for a salary" but have the opportunity to be part of a greater plan by growing in service for others, creating value and fulfill the ultimate mission that God gave us in the teaching of Jesus Christ: "You shall love one another".

## Contact: WENG Chung-Feng

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## Whole Person Health Scale for Employee of Hospital

## FANG Chun-Kai, PI Shih-Hsuan, LIU Chih-Ju

## Introduction

Overloading and burnout among employee of health care institutes is often concerned by the administrative management of hospital. However, it is a viewpoint from the negative side. There is few article or study to understand whole person health of employee who work in hospitals from the positive side. The goal of the study are to construct a new scale to score the whole person health for employee of hospital and test its reliability and validity.

## Purpose/Methods

The study combined qualitative methods to establish the scale and quantitative research methods. Qualitative research with the phenomenological approach was to collect data from by the focus groups and to analyze the texts by the content analysis. Quantitative researches were to create the Whole Person Health Scale for Employee of Hospital (WPHS-EH) and to test its reliability and validity. The project was approved by the Committee of Human Testing and passed the inspection of the Institutional Review Board.

## Results

In the qualitative researches, there were 6 focus groups and 63 participants. After content analysis, we found health issues from the physical, psychological, social and spiritual aspects. Based on the qualitative results, we designed a 15-item Scale (WPHS-EH). In quantitative researches, there were 167 participants (F: 135; M: 32). The average age was 37.40  $\pm$  9.51 and the average seniority was 11.99  $\pm$  9.56. In the reliability of the WPHS-EH, the Hotelling's T-squared distribution was 4309.023, the F-distribution was 282.780 (p<0.0001). The Cronbach's alpha was 0.856. The WPHS-EH achieved significance in terms of the Bartlett's test of sphericity (p<0.0001) and the KMO value was 0.855, indicating that the data could be used in factor analysis. The factors included (1) total balance, (2) without excessive pressure, and (3) valuable support.

## **Conclusions**

The WPHS-EH is a potentially tool to understand the health status among the employee in the health care institutes. The WPHS-ES shall become a self-rating scale for self-monitor and a good tool for the institutes caring their employee.

## Comments

The Whole Person Health Scale for Employee of Hospital is a selfrating scale for understanding the health of employee in physical, psychological, social, and spiritual aspects.

Contact: FANG Chun-Kai Mackay Memorial Hospital 92, sec. 2, Zhongshan Rd, Zhongshan Dist., Taipei, TWN fang0415@yahoo.com.tw Entertainment-Education (EE) as an effective health communication strategy in influencing people's knowledge and willingness to enrol in health insurance scheme. A case study of staff of Adeleke University Ede, Osun State, Nigeria.

## ALIU Michael, EDET-UTAN Oluwakemi, ODEWALE Comfort, OSHINEYE Adeola, TEMITOPE Akinyemiju, ATOLAGBE James

## Introduction

An important part of an overall strategy to achieving universal health coverage is by expanding access to health insurance. Unfortunately, Health care in Nigeria is poorly funded as nearly 70% of total expenditure on health is private/out-of-pocket. Evidence-based health education interventions that can optimise enrolment in health insurance scheme (HIS) are few in Nigeria. This study was therefore designed to explore the effects of drama Entertainment-Education on the willingness of workers of Adeleke University to enrol in a HIS.

## Purpose/Methods

The need assessment of the study was triggered by anecdotal information that suggests low willingness of staff members to enrol in health insurance. The study used a pre-test - post-test one-group design in involving staff members of the institution. Knowledge and willingness outcomes were measured at baseline and follow-up on selected staffs using cluster sampling method to administer a validated structured questionnaire. Collected data were analysed using descriptive statistics at p=0.05 with the aid of STATA software.

## Results

There were more male respondents (52.29%). The proportion of persons willing to enrol in HIS increased from 51.58% (at baseline- before intervention) to 76.47% (at follow up-after intervention). After the intervention, the increase in willingness to enrol was more in females (32.23%) compared with males (18.12%). The proportion of persons with knowledge of benefits of health insurance increased from 49.47% (at baseline) to 67.65% (at follow-up). The increase in knowledge of benefits was higher among females 34.84% than males (3.9%).

## Conclusions

This study has shown that Entertainment-Education is an effective communication tool in influencing the knowledge of benefits and willingness to enrol in health insurance more especially among the females. Therefore, it is recommended that Entertainment-Education be incorporated into promoting enrolment in health insurance scheme in similar institutions.

## Comments

We'd like to acknowledge the entire 400 Level Public Health students of Adeleke University for their participation and we look forward to the possibility of presenting our drama at the HPH conference. We'd also wish to acknowledge the Dean of Faculty of Health Science, Prof. James Atolagbe for his mentor-ship.

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## Session O1.6: Lifestyle interventions and counseling for the elderly

Multifactors falling-prevention in a senior residence

## CHENG Chih-Ling, CHANG Shu-Fang, CHIEN Mei-Ting, CHENG Yi-Feng, YU Shuchuan, KUO Ying-Ling, HUNG Ling-Yu, CHAO Pai-Mei

## Introduction

12% of Taiwanese are more than 65 years old. 19.9% of people aged 65-74 fell in the past year. I.e., 1 in 5 of the elderly in Taiwan has a falling experience. Falling not only affects the physical and psychological health of the elderly, but also their social function and life quality. It increases the burden for care givers, too.

## Purpose/Methods

In the first and sixth week, exercise therapist instructs the participants to do exercise that can prevent falling. Pharmacist reviews the medicines the participants are taking in week two. In week three, nutritionist designs a falling-prevention diet. In week four, nurse demonstrates how to prevent falling. In week five, psychologist instructs techniques to relax.

## Results

Fitness test scores increase after falling-prevention exercise. Sit and stand-up in 30 seconds increases from 10.8 to 12.5 times in average. Standing with only right feet increases from 3.6 seconds to 4.3 seconds in average. Standing with only left feet increases from 3.8 seconds to 4.9 seconds in average. Two-minute legs lifting test increases from 76.9 times to 94.5 times in average.

## **Conclusions**

The muscle strength of lower limbs, function of balance, and cardiorespiratory endurance all increase. There were 2 falling accidents per month in average before the instructions involved, and no falling accidents happened during the six weeks of falling-prevention class. Multiple factors involvement is proved to be the most effective method to prevent falling.

## Comments

The psychological influence of falling is easy to be neglected. The elderly may decrease their daily activities because they fear to fall. It will lead to interpersonal isolation, negative feelings, lack of stimulation in life, brain degeneration, and general life quality decrease at last. It is suggested that psychologists should also involve in a falling-prevention program.

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Combined dietetic and physiotherapeutic intervention in medical inpatients improved nutrition intake, function, and quality of life at discharge.

## SOENDERGAARD Lise N, HOLST Mette, BENDTSEN Mette D, ANDREASEN Jane

## Introduction

Nutritional risk and bed rest in hospitalized patients have both been profoundly shown to impair the clinical course negatively. An active approach based on nutritional support and early functional training, in an intervention closely integrated in the daily activities of the ward, may be beneficial.

## Purpose/Methods

The purpose was to assess whether it was possible to influence nutrition intake, functional level and quality of life, with an intervention in acutely ill-hospitalized infectious medical patients. For potentially frail patients, functional training three times weekly and individually adjusted self-training program for daily use was given by physiotherapist. Timed oral nutritional supplement straight after training and dietetic advice was provided. A historical control group was used to compare nutrition intake. Functional measures, EQ5D were obtained at admission and discharge.

## Results

The study included 59 patients in the intervention group. Historic control included 145. Energy and protein intake increased by 3053 KJ (p<0.001) and 28 grams of protein (p<0.001), compared to historic controls. Functional parameters (DEMMI, Timed Up and Go and 30 second chair test) and quality of life, improved significantly for the overall group, most remarkably in patients >70 years of age, from hospitalization to discharge

## **Conclusions**

The intervention with dietician and timed oral supplement to functional training by physiotherapist in hospitalized infectious medical patients, significant improved function as well as nutrition intake and quality of life.

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## Stop UTI - an app to regain urogenital health

## JENSEN Bente Thoft, LAURIDSEN Susanne Vahr

## Introduction

A 20% annual incidence of urinary tract infection is a major challenge for patients performing intermittent catheterisation. Prevention strategies to empower patient-knowledge and

involvement are warranted. Self-directed health technologies, such as Apps, are requested across healthcare settings. In 2014 the App STOP-UTI was developed in a partnership between the European Association of Urology Nurses and affiliated. The aim of the STOP-UTI programme is to promote and provide valuable training and education to both professionals and clients who perform CIC

## Purpose/Methods

The App is based upon European evidence based recommendations regarding prevention of UTI and client participation. Users of the app get their own personal recommendations for preventing UTI, or they have their knowledge boosted with helpful facts and resources. Before scaling the app a need-assessment is required by evaluating the response to this innovative approach to self-directed health promotion. The evaluation is going to be quantitative as well as qualitative.

## Results

The App was launched summer 2015. Information of numbers of downloads within Europe will be presented. Secondly; the synthesis of qualitative interviews of health professionals and clients perception of the value of the health promotion delivered by the app.

## Conclusions

STOP-UTI is an educational initiative under the umbrella of the European School of Urology Nurses. The app is an alternative new technology to strengthen the partnership between health care professionals and clients by giving clients a personal easy access to evidence based recommendations and help CIC users regaining urogenital health.

## Comments

Conflict of Interest: The authors participated in developing the app together with Wellspect. The authors took responsibility for the evidence based recommendations on behalf of the European Association of Urology Nurses (EAUN)

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Patient and staff experiences of participation in an implementation study of physical activity and nutritional intervention at a medical ward: A qualitative study

## ANDREASEN Jane, SOENDERGAARD Lise N, HOLST Mette

## Introduction

Evaluation of feasibility and implementation studies on health promoting interventions for medical patients in hospitals is scarce, especially studies involving both a patient and a staff perspective. An explorative approach to gather experiences from both health professionals and patients is important to improve

future evidence-based initiatives to enhance health promoting interventions

## Purpose/Methods

The aim was to explore how patients and staff experienced a multifaceted health promoting intervention concerning physical activity and nutrition during admission, and secondly to explore how the knowledge and experience was used afterwards. Two focus groups interviews were conducted to explore in-depth knowledge. Additionally individual telephone interviews were conducted as three patients were not available at the time of the group interview. An inductive thematic content analysis was the fundamental for the findings of the study

### Results

Patients and staff described experiences at various levels from an intrapersonal and interpersonal level to an organisational and environmental level. Both groups found the supportive behaviour of the physiotherapist and the dietician facilitated motivation and changed their usual behaviour. Staff members experienced time issues and limited resources, and patients reported that their situation and "being on their own" were barriers for health promoting activities. It was difficult to maintain the new behaviours in both groups but for different reasons

## **Conclusions**

An ecological inspired framework seemed a constructive method for implementing a multifaceted health promoting intervention on physical activity and nutrition at a medical ward and both staff and patients expressed primarily positive experiences. However, the staff did not fully take part in the intervention and after the project period adherence diminished and patient compliance differed as well

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## Session O1.7: Tobacco cessation needs, services and interventions

Comprehensive Stop Smoking Services in Smoking Free Hospital.

## HSUEH Kuang-Chieh, HSUEH Shu-Chun, PAN Lee-Fei, CHOU Ming-Yueh, TU Ming-Shium, CHENG Jin-Shiung

## Introduction

Cigarette smoking is the most important preventable cause to public health in the world. More than 5.4 million people died from smoking-related diseases per year. Evidences revealed that stopping smoking is one of the most cost-effective medical interventions for those morbidity and mortality and Smoking Free hospital is the most appropriate campus to provide comprehensive stop smoking services (smoking cessation clinic, personal consultation, smoking cessation group therapy) and smoking-free environment for both inpatients and outpatients.

## Purpose/Methods

The purpose of this project is to reveal the effectiveness of comprehensive stop smoking services through a smoking free hospital. According the Global Network for Tobacco Free Health Care Services-ENSH standards, our study recorded the smoking condition of 185,009 outpatients and 31,176 inpatients via electronic referred system and provided smoking cessation services (including smoking cessation clinic, consultation and group therapy) for all smokers want to quit during Jan 2014 to Dec 2014. 17409 smokers had been certified finally.

## Results

Under our comprehensive smoking cessation service, 526 cases accepted smoking cessation clinic and 2097 cases accepted smoking cessation consultation. We also conducted 16 smoking cessation groups (12 hours education lessons) for another 123 cases. All cases will be followed their smoking status via telephone after 6 months. For 526 smoking cessation clinic patients, the abstinence rate is and 33%, 2097 consultation patients is with 29% abstinence rate and 123 patients who received group therapy with highest abstinence rate: 57%.

### Conclusions

Stop smoking services can be executed in multiple domains via smoking free hospital for outpatient and inpatient. This project has successfully identified lots of smokers and promote their willingness to quit smoke effectively. All of those participants who want to quit can also find an appropriate way by themselves to quit smoking.

### Comments

Stop Smoking service is one of the most effective medical interventions for health promotion, smoking-free hospital is an ideal site to provide smoking cessation service and help smokers to quit. The project identified smokers from inpatients and outpatients first and provided several kinds of smoking cessation services via electronic referred system, the results also reveal that Smoking Cessation Service including smoking cessation clinic, smoking cessation consultation and group therapy are all effectiveness for smoking cessation.

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## **Tobacco Cessation Needs**

## CHALOM David, KOALICK Susann, GASSER Rudi, ORIORDAN Ann

## Introduction

Tobacco use is highly addictive and harms every organ in the body. In 2005, the World Health Organization developed the Framework Convention on Tobacco Control (FCTC). This Convention signified the importance given to the growing global tobacco epidemic by both political and health leaders. FCTC clearly identifies healthcare workers and healthcare services as central to tobacco cessation and to the offering of support to tobacco users who want to quit. Do we know enough about what can improve the quality of the tobacco cessation services offered?

## Purpose/Methods

This presentation will examine what tobacco cessation needs, over and above the basic and mandatory requirements. It will outline the many ways healthcare workers contribute and support the delivery of tobacco cessation in their daily practice and how national and organisational policies influence and impact on the quality of tobacco cessation services provided. Aspects such as media tools and communication strategies to reach tobacco users, creativity in cessation methods and choices offered to different tobacco users in their quit attempts will be presented.

## Results

Progress in developing and delivering quality services is often based on the experience and good practice shared by others in the field. This presentation will share outcomes and examples of good practice gathered from an ENSH-Global symposium to be held on April 1st 2016 in Zurich, Switzerland. It will highlight the many supportive and challenging factors encountered by healthcare service in the development of their tobacco cessation services in different countries, cultures and healthcare systems and highlight implemented innovative practice.

### **Conclusions**

Tobacco cessation is a core requisite of a quality tobacco management policy. However, an effective tobacco management policy is essential to support a quality tobacco cessation service. Healthcare services can by working together and learning from the experiences others, implement effective tobacco management that will contribute significantly to the realisation of national obligations under FCTC.

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Effectiveness of the Gold Standard Programme compared to other smoking cessation interventions in Denmark

## RASMUSSEN Mette, FERNANDEZ Esteve, TØNNESEN Hanne

## Introduction

Tobacco is the most damaging single and preventable lifestyle factor for public health, and the harmful effects are well documented. Every year, 14,000 Danes die due to smoking.

## Purpose/Methods

Aim: To compare the effectiveness of the Gold Standard Programme (GSP) and other face-to-face smoking cessation programmes in Denmark after implementation in real-life, and to identify factors associated with smoking cessation. Method: A prospective cohort study, based on data from the National Danish Smoking Cessation Database (SCDB) from 2001-2013. More than 80.000 smokers is registered in the database after giving informed consent. Patients at the age of ≥15 attending a SC programme with planned follow-up were included. The

primary outcome was continuous abstinence for six months according to self-report.

### Results

34,235 responders were included, and the follow-up rate was 74%. All over 33% (11,184) were continuously smoke-free after 6 months; 24% when non-responders were considered to smoke. Women were less likely to stay abstinent; 0.83 (0.79-0.88). Short interventions (health promotion counselling and crash courses) were more effective to men. GSP was the only intervention with a significant result regardless of gender even after adjusting for confounders, increasing the odds of abstinence by 70% for men and 35% for women. In absolute numbers 4,087 men and 5,890 women were smoke free after attending a GSP intervention. Compliance, lighter smoking, older age and not being a disadvantaged smoker were associated with a positive outcome for both genders. Compliance was the most important predictor and increased the odds of abstinence more the 3.5 fold.

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# Session O1.8: Creating a culture of health by integrating high reliability into a patient centered model of care

Creating a culture of health by integrating high reliability into a patient centered model of care

## **DOBULER Kenneth J., MARTIN Kathleen**

## Introduction

The Journal of Patient Safety, 2012, reported that 400,000 deaths occur annually in the US as a result of medical error. For that reason, Griffin Hospital joined the Connecticut Hospital Association in 2014 to teach employees and medical staff a set of Safety Habits and Error Prevention Tools that used daily will reduce medical error, while improving clinical outcomes and hospital experience. As a designated Planetree Hospital, Griffin's core value is that safe accessible care is fundamental to patient-centered care.

## Purpose/Methods

Applying principles of High Reliability fosters a culture of safety by ensuring that expectations of care are applied consistently as intended over time. In June of 2014, Griffin Hospital began to teach "Safety Starts With Me" a program applying lessons learned from other high risk industries to the healthcare environment. Within five months, 1500 employees and medical staff received training followed by establishment of daily hospital wide safety huddles intended to detect and correct problems before they impacted patient care

### Results

In FY 2015, 1762 safety concerns were identified and addressed at daily safety huddles. Our Serious Safety Event rating decreased from 1.24 to 0.54 over a rolling 12 months Griffin had ZERO CLABSI, CAUTI, VAP, or publically reported Surgical Site Infections, and ZERO Pressure Ulcers not present on admission that advanced past a stage 2 Reportable adverse events to the Dept. of Health decreased by 30% Inpatient falls with harm decreased by 30% Hospital acquired C-Difficile rate decreased > 82%

## **Conclusions**

Evaluation of the first year of results after integrating high reliability principles into Griffin Hospital's Planetree Model of patient centered care produced significant performance improvement through-out the organization. It was concluded that establishing organizational and managerial commitment to create a culture that promotes patient and employee safety through the daily use of high reliability safety habits and tools can markedly improve patient and employee overall health and clinical outcomes by reducing serious safety events, infections, and harm.

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## Session O1.9: Symposium on Health Care and Healthy Ageing

## Symposium on Health Care and Healthy Ageing

## **CHIOU Shu-Ti**

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. The Health Promoting Hospitals (HPH) incorporates the concepts, values and principles of health promotion into the culture and daily operations of hospitals. Health promotion, disease management and patient safety interventions delivered in and by hospitals have been shown to improve older persons' health outcomes. The session will showcase strategies, projects and best practices of age-friendly heath care from different countries.

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# Session O1.10: Round Table Session: Updated WHO-HPH Standards for hospitals and other health care settings - relevance for patient pathways and staff

Round Table Session: Updated WHO-HPH Standards for hospitals and other health care settings - relevance for patient pathways and staff

## TØNNESEN Hanne, SVANE Jeff Kirk

With 10 years gone by since it's initial publication, the WHO HPH Manual for Implementation of Health Promotion in Hospitals is now under revision and update. The project is headed by WHOCC in Copenhagen and funded by WHO Europe. The revision and update will update the evidence-base of the standards with the newest scientific literature. It will also broaden the scope of the manual to encompass the 'non-hospital organizations' as well, as these are a natural part of the HPH membership. The first draft version of the updated standards has undergone pilot testing in real-life with clinicians from several countries. Subsequently, it was also through a review process with WHO and HPH experts as well as other key experts in the field. Upon final editing and modifications based on test and review results, a beta version is now avaliable. This symposium will focus on the updated and revised standards, provide a walk through of the elements, and allow discussion of relevance for patient pathways and for staff. Future nexts steps in implementation will also be discussed.

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## Session O2.1: Health promotion for mothers, children and adolescents

Parents and teenagers voices: a model for Italian children's Hospitals

## CELESTI Lucia, CONTE Maria Stella, RAPONI Massimiliano

## Introduction

Parents associations are a precious resource, both because of their direct knowledge of the assistance and psychological problems of the patients, and because of their capability to find empathetic and trusted links with customers. The venture is integrated in the project of Family Centered Care, which includes the creation of structured paths to involve the families directly in the family care process.

## Purpose/Methods

Associations active at the hospital have reserved a placement inside the Family Services: at the desk they can both inform and listen to the families of children with specific illnesses, and they represent a channel between the family's requests and the hospital's operators. In particular, they direct and ease the access of patients and their families to Bambino Gesù Children's Hospital's facilities through agreed paths and help them when it's time to return home, by creating a protective net.

## Results

The opinion of patients and familieswas taken into greater consideration thanks to the councils composed of both relatives and teenagers. Patients are identified at all the hospital's departments, with the contribution of Chaplains, nurses and doctors, hospital teachers and volunteers. The targets are: \*Creation of a direct channel to communicate with young patients \*Listen to the adolescents point of view in relation to the strengths and weaknesses of care and assistance \*Improve the quality of recovery

## Conclusions

In anticipation for the accreditation survey of the Joint Commission International, 23 associations (of the approximately 100 associations qualified at the hospital) actively participated in preparation with our health professionals by adapting their files to the required standards. A training course on research was provided for parents and teenagers inside participating associations that was a successful first step in a possible continuation of this offering.

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Developing a smoking cessation program in adolescents by a

## cooperating work between a local hospital and a community

## YUN Kang Sup, LEE Sang Hyung, PARK Min-Hyun, OH Bumjo, PARK Kwang Wook, KIM Do Young, YANG Mi Ra, LEE Hee Young, OH Si Hyoung, CHOI In Su



## Introduction

Smoking cessation intervention in youth group should be managed in an active manner. Since early development of nicotine dependence and exposure of harmful effects in health can be detrimental later in this group. However, in Korea, age considered smoking cessation intervention programs have been rarely available and the social perception about youth smoking is not well-disposed. So, this year, Boramae Medical Center and a district office of education directing 103 schools initiated a project to develop a youth specific smoking cessation program.

## Purpose/Methods

The two main purposes of the program are to develop an age proper smoking cessation program and to change social attitude on youth smoking. The smoking cessation program is designed to encourage motivation to quit smoking, to enhance self-esteem, to learn a sense of considering others, and eventually to learn self-importance. It is consisted in smoking cessation clinic visits, intense group counselling meetings and a no-smoking activity day camp in the period of 8 weeks which is followed by 6 months mentoring period. Assessments for participants' behavior and cognition as well as evaluation for program effectiveness on motivational enhancement to quit smoking and to change smoking behavior are used. Satisfaction survey for program is also conducted for further development of program.

## Results

31 students from 7 different middle and high schools are grouped into 4 different groups. Each group meets 6 to 7 times for smoking cessation clinic visits and group counselling meetings. Preliminarily, the overall attendance rate is 80%. Smoking quit rate on 4th week is 17%, on 8th week is 28%. Program evaluation, participants' behavior and cognition assessment, and satisfaction survey result will be followed.

## **Conclusions**

This program has been a good experience not only for us to learn about the culture of youth, especially adolescent but also to gain insight into how important it is that, this program to be successful, schools and parents need to be involved actively. The experience and the result of program evaluation will be reflected in an upcoming program in 2016. Our goal is to develop a good example for youth smoking cessation program and share the experience to make a healthier community.

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## Session O2.2: Innovations and partnerships to create a culture of health

Raising the Bar on Patient-Centered
Primary Care through Innovation and
Partnership

## GUASTELLO Sara, ELWELL Anne, KELVEY-ALBERT Michele

### Introduction

Primary care transformation efforts hinge on health promoting partnerships - at the individual, team, practice and community levels. Drawing on these partnerships, the patient-centered medical home (PCMH) has emerged as a viable model for improving population health and patient satisfaction, and reducing costs. However, achievement of PCMH does not always signify patient-centered transformation. Integrating PCMH with Planetree's framework for organizational culture change positions practices for transformation that is more comprehensive, sustainable and tied to what matters most to patients and staff.

## Purpose/Methods

Planetree, an international advocacy, education and coaching organization and Qualidigm, a quality improvement organization co-designed a transformation pathway incorporating PCMH targets (access, team-based care, coordination, population health management) and Planetree Bronze areas of emphasis (infrastructure, patient/family activation and staff engagement). The goal of this approach, being piloted at 50 Connecticut practices via the State Innovation Model (SIM), is to ease the burden of transformation while improving the care experience for patients and staff. Pilot components include a needs assessment, technical assistance, virtual education and peer-to-peer learning.

## Results

Currently underway, the pilot allows for flexibility so participating offices can help to identify the optimal approach before finalizing the statewide Advanced Medical Home program strategy, which aims to transform over 300 practices by 2019. In this session, presenters will provide an update on the status of the pilot in-progress, with emphasis on lessons learned to date.

## Conclusions

Traditional medical home targets provide a solid foundation for improving primary care. However, this pilot's premise is that true and sustainable transformation requires greater emphasis on elements that facilitate a deeper level of engagement at the individual, team, practice and community levels. The effort of blending PCMH standards with Planetree Bronze criteria shows great promise for informing the national dialogue about what it takes to transform primary care practice and how to maintain the gains made.

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## Full Circle: Workflow, Technology, and People Improve Pharmacy Outcomes

## HANKINSON Mary Therese, STANBERRY Elizabeth

## Introduction

Pharmacy design requires consideration for the patient experience, workflow and built environment. The US Pharmacopeia proposed environmental design guidelines for illumination, interruptions/distractions, sounds/noise, physical design/organization of workspaces, and medication safety zones to reduce latent errors. VA NJ Health Care System renovated an outpatient pharmacy in collaboration with The Center for Health Design utilizing Pebble Project evidence-based design (EBD) and Planetree principles. Qualitative and quantitative outcomes provide evidence of increased satisfaction and efficiencies resulting from the pharmacy renovation.

## Purpose/Methods

Preliminary focus groups with patients indicated pharmacy dissatisfaction was due to increased wait times, crowding, noisiness, physical discomfort, inefficiencies and absence of privacy. An EBD framework was utilized to base decisions about the built environment on credible research to achieve the best possible outcomes. Design goals for pharmacy renovation: Patient Experience: Enhance privacy; access to information/positive distractions, reduce wait times Workflow: Redesign to enhance efficiencies Environments: Utilize architectural layouts/interior design features to promote physical comfort; reduce noise, stress and fatigue.

## Results

The pharmacy redesign decreased patient wait times from a monthly average of 40 minutes to 16.5 minutes. Operational flow diagrams enhanced space functionality while improving staff productivity and efficiency. New equipment was configured and supports a process that minimizes interruptions and distractions, contributors to medication errors. Access to information was accomplished by assigning space for placement of educational materials and access to virtually-based patient portals. Qualitative and quantitative data documented increases in staff and patient satisfaction resulting from pharmacy redesign.

## Conclusions

Project success required the integration of workflow design, improved automation and efforts to improve staff and patient satisfaction with the renovated outpatient pharmacy. Pharmacy staff required an adjustment period to become comfortable with the new environment, processes, and ways of interacting in a redesigned space. Patients needed time to change their mental model of "what was" to "what is." Supervisory staff supported employees to utilize the space as designed and patients to use the system with the newly designed processes.

## Comments

Mary Therese Hankinson, MBA, MS, RD, EDAC, CTP is the Director, Patient Centered Care/Planetree and Elizabeth Stanberry, PharmD is the Chief, Pharmacy Service at VA NJ Health Care System. Results of the pharmacy redesign were published by Ms. Hankinson and Dr. Stanberry in HealthCare Design and are

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## A Preliminary Report of Diversified Stress Reduction Program

## LEE Kuan-Hui, LEE Chin-Feng, HUANG Hsin-Ying, WOO Peter, KUO Ying-Ling, TSOU Jhi-Chyun

### Introduction

Due to shortage of manpower, medical professionals generally experienced a higher degree of work stress. From 2013 to 2014, a total of 155 employees received psychosomatic consultation and support. Analyzing the reasons for consultation, the majority is 'personal emotions', followed by 'work disturbances'. To provide our colleagues with various kinds of stress reduction, we transact diversified stress reduction program since 2011, e.g. horticulture, Ukulele, Decoupage, aromatherapy etc. Through the program, we hope our colleagues can gain new hobbies and elaxation.

## Purpose/Methods

From 2014 July 20 to August 22, a survey was done using questionnaire for colleagues who participated in various activities mentioned above. After finishing the program, the degree of agreement was measured in seven categories; 1) increase physical activities, 2) develop new hobbies, 3) relax mood, 4) gain achievements, 5) learn logical training, 6) make new friends and 7) understand related skills.

## Results

A total of 112 participants enrolled in the program. We delivered 68 copies of questionnaire with a reply of 32 copies in which 31 copies were effective. According to the degree of agreement in separate categories, 97% colleagues agreed that the stress reduction program can 'develop new hobbies and understand related skills'; 87% colleagues agreed that the stress reduction program can 'relax mood'; the categories with the lowest score are 'learn logical training' and 'increase physical activities'.

## Conclusions

According to the results, stress reduction program is effective in mood relaxation. Additionally, if the program involves practical skills and is applicable in daily life, our colleagues are more likely to develop new hobbies. We observed our colleagues are more willing to discuss, interact and share with other colleagues. We suggest more programs to be held in the near future. Apart from enhancing the relationship among colleagues, we also provide a banquet for their hearts.

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The importance of an unbroken chain of implementation efforts and the need for developing tools to facilitate the sustainable use of disease prevention methods

## NILSSON CARLSSON Irene, STRÅÅT Christina

## Introduction

The Swedish National Board of Health and Welfare (NBHW) published National Guidelines for Disease Prevention Methods in 2011. The guidelines cover tobacco use, hazardous use of alcohol, insufficient physical activity and unhealthy eating habits and have during three years been subject of both national and regional multifaceted implementation efforts directed towards regional healthcare organisations and health professionals. An evaluation of the implementation of the guidelines has shown that the degree of successful implementation of the guidelines varied substantially across Sweden.

## Purpose/Methods

In order to better understand these variations a qualitative study was undertaken. The study highlights the importance of how guidelines are translated between different levels in a complex organisation comprising political, administrative and professional actors. The translation is pictured as a chain of equally important parts. The chain starts at the national level, links to the regional political level, which links further to commissioners of healthcare (administrative level) to healthcare leaders and practitioners in primary care.

## Results

Common reasons for ruptures of the chain as well as factors for successful implementation are described in the study, highlighting the importance of an explicit ownership of the task to implement, actively working "translators" of the guidelines and the legitimacy of the guidelines. Until today different regions in Sweden have applied different tools and ways of steering towards the use of Disease Prevention Methods, not the least when it comes to the use of economic incentives.

## Conclusions

The results of the study provide us with an important basis for further development of effective models and tools for steering aiming at sustainable use of disease preventing methods. NBHW would like to discuss the results of the study in order to gain further insights on how the sustainable use of disease preventing methods can be facilitated.

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## Patient Journey Mapping -Codesigning the Upper GI Cancer Pathway

## O'BRIEN Jarrard, ANSTIS Olivia, MAIN Jodie

## Introduction

Journey mapping provides comprehensive understanding of patients' experience. This work helps to reorient services around patient reported outcomes and the drivers of positive experience. It helps staff to understand what matters to patients, and supports patients as partners and decision-makers in their own care.

## Purpose/Methods

We wanted to improve the experience of patients undergoing treatment for upper gastro-intestinal cancer by understanding their current experience and co-designing with them, their families and carers, the optimal patient journey. The project also included the evaluation of a multidisciplinary clinic that was set up to act as a "one-stop shop" for patients. This was a qualitative study that involved semi structured interviews with patients and the multidisciplinary team, as well as patient and carer focus groups.

### Results

The research identified several themes, including: \*The need for support in the early stages \*Feelings of dependency and the need to develop trust \*The importance of a key contact person \*The importance of carers in supporting patient care \*The need for support on discharge \*The need for effective communication A gap analysis will inform a range of quality improvement activities in the service. The research also highlighted several coping strategies that patients employ. Providing staff with this information will allow them to tailor care to individuals.

## Conclusions

This project is part of a whole-of-service redesign. It forms the foundation to develop an interactive electronic journey map that will allow patients, their families and carers to access the right information at the right time, including self-management tools. Making the journey map electronic will empower people through better understanding the services and treatments available, and the implications of their healthcare choices on their overall journey.

## Comments

Examples of the graphic and digital journey map will be presented

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## O2.3: Chances and challenges in creating a health promoting healthcare delivery system

Preparing New Physicians for the Future: A Patient-Centered Care Curriculum to Enhance Education and Assessment in a Planetreedesignated Institution

## **HOROWITZ Steven, MALDONADO Maria**

### Introduction

The Accreditation Council on Graduate Medical Education requires residency programs to evaluate physicians in training on their ability to practice patient centered care, but provides no guidelines. Resident physicians in a Planetree designated institution have a unique opportunity to learn in an environment that honors compassion and other components of patient-centered care. We decided to develop a comprehensive curriculum designed to address and enhance all factors that influence the delivery of patient-centered care.

## Purpose/Methods

We convened a multidisciplinary committee charged with creating a curriculum that fosters the development of patientcentered skills. The curriculum was designed to nurture empathy, promote the ability to engage patient and family members in the care of the patient, and foster compassionate and collaborative communication not only with patients, but with all members of the healthcare delivery system. The committee, which is ongoing, consists of patients, representatives from departments of patient services, internal and family medicine, surgery, obstetrics and gynecology, integrative medicine, patient relations, pastoral care, critical care medicine, palliative care and members of the Planetree physicians committee. Components of patient-physician communication, including compassionate communication, apology and disclosure, cultural competency, empathy, spirituality in medicine, integrative medicine, and breaking bad news are individually taught. Importantly, skills to perform effectively in these areas are objectively assessed in serial fashion. Also, physician wellness and strategies to mitigate burnout have also been woven into the curriculum because of the profound impact of burn-out on patient care and the personal life of the physician.

## Results

Baseline measures of empathy and burn-out were confidentially assessed at orientation and will continue be assessed and tracked throughout the residency program to measure the impact of the curriculum. Patient satisfaction, nursing and peer evaluation surveys will be used to assess individual resident patient-centered performance and growth over time. The educational objectives of the curriculum are presented during a full day of Planetree orientation for all in-coming residents.

## Conclusions

Current time demands on physicians including increased documentation, core measures and growing administrative requirements threaten to further erode the medically important, time honored physician-patient relationship. We have leveraged the current ACGME charge to assess residents on their ability to deliver patient-centered care into a comprehensive curriculum designed to create the compassionate physician of the future.

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A Unique Partnership to Change How We Educate Future Healthcare

## Workers to deliver Patient-Centered Care

## KAYE GEHRKE Ellen, CARTER Randy, MCNEAL Gloria, LACHAPELLE Kevin, **MYERS Michael**

## Introduction

This presentation will discuss a partnership between Planetree, an organization dedicated to development and innovation in patient-centered care, and National University School of Health and Human Services (NU-SHHS). Presenters outline the organizational change process in which they worked together to restructure the school, curriculum, training and community healthcare institutional relationships. The outcome will be the first Planetree designated University. This partnership promotes a patient-centered healthcare delivery system by establishing an innovative educational culture aligned with the vision Planetree.

## Purpose/Methods

Planetree and National University established a formal partnership to apply practices used to establish Planetree designated institutions around the world. This is the first time Planetree worked with an accredited academic institution to design and implement an educational culture focused on the values and principles of patient centered care. Focus groups, curriculum committees, stakeholder meetings, faculty training, learning journeys were part of the metamorphosis towards establishing an educational delivery system that incorporates all the benefits of patient-centered care.

## Results

This is an ongoing multiphase process. The first outcome was the triad connection of Planetree, NU- SHHS and Planetree designated Sharp Healthcare in San Diego. Interviews with healthcare leaders established the need for healthcare educational systems to prepare individuals who will immediately contribute great clinical skills but also exemplify patientcentered excellence. Focus groups established the interprofessional community and commitment to move the designation process forward in a collaborative and positive manner. Curriculum is also under review.

## **Conclusions**

The unique partnership between Planetree, NU-SHHS and the associated healthcare institutions is already creating a groundswell of interest in academic institutions who train healthcare providers and leaders. Patient-centered care is a major concern of today's healthcare delivery systems. Preparing healthcare providers for careers where they empower patients and families to engage in their health and well-being is critical. Planetree and NU-SHHS are creating a new model for healthcare education to set the standards for patient-centered care practices.

## Comments

Each of the presenters represents the partnership triad of Planetree, National University and Sharp Healthcare.

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## When community care takes a step into geriatric research - Benefits and challenges

## LINNERUD Siv, OS Kari Annette, MATIESEN Iacob, BJELKE Börje

## Introduction

The Norwegian Government requires the municipalities to reinforce their expertise in research.

## Purpose/Methods

The Norwegian Centres for Development of Institutional Services is an excellent arena for research in a municipal setting. These Centres have been given the role of being the driving force for expertise and quality in nursing home and home care services. In order to strengthen this new municipal research platform a collaboration between the nursing home, Akershus University hospital and a private enterprise has been initiated.

## Results

The nursing home has improved their own research expertise and developed an arena for further project collaboration. The collaboration between three different sectors has resulted in a better accessibility to applied and translational research and a product developed with feedback from a nursing home population and thereby more patient friendly.

## Conclusions

One of the major factors for succeeding when working with the community care is to allocate financial resources so that it will also benefit the community care provider, not expecting them to contribute in the project on top of a major daily workload. The project has resulted more activities, better working relationships and strengthen the trust between the parties.

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## Use of the national registry of patient harms to improve patient safety at local hospitals

## **BUKHOLM Ida**

## Introduction

Norwegian University of life sciences Background: Patient safety and quality improvement has to be performed at the local level. Therefore, it is mandatory for Norwegian hospitals to have a reporting system for patient harms and adverse events. The Norwegian System of Compensation to Patients (NPE) is a "noblame" system. Patients who claim to have experienced harm by health services can be compensated for this. We wanted to find out if hospitals were aware of such cases before patients made a claim to NPE.

## Purpose/Methods

Compensated cases for each hospital registered with NPE during the period between 2010- 2015 were identified and sent to the corresponding hospital. The hospital used local registries to report adverse events and map the cases.

### Results

The hospitals reported that only 20-35% of the cases were registered in the local adverse event registries. Furthermore, there were serious patient harms that the hospitals was not aware of before the cases were registered at NPE. This means that the hospitals were unaware of approximately 70% of serious patient injuries.

## **Conclusions**

It is alarming that more than 70% of serious patient injuries are not reported at the local level. Since such injuries have to be reported by medical professionals and the hospital, they are underrepresented in the reporting systems. The present study highlights the need to engage the medical community in reporting patient harms and the importance of involving patients in quality improvement/patient safety at the hospital level. The results from this study will be presented and discussed.

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## Triple-wins Strategy of Hospital, Communities and Local Volunteers in Health Stations

## CHAN HSIN-LUNG, HUNG TA-CHUAN, HSU CHIH-HUNG

## Introduction

In order to strengthen the partnership between our hospital and nearby communities for health promotion, we recruited targeted residents as volunteers and encourage them to set up their own health stations. This is a concept of "local-serves-locals". Training courses are provided regularly to enhance

volunteers' health knowledge and awareness by our hospital. Through their cooperation, it is expected that health promotion activities could be delivered efficiently and effectively and it could promote a positive impact on their neighborhood.

## Purpose/Methods

We cooperated with the local organizations (i.e. village offices, churches). The volunteers are recruited to establish health stations. For residents, stations offer physiological measurement (i.e. BMI, BP, abdominal waist), deliver information of health promotion and execute medical referral. For volunteers, they were requested to attend regular training courses for enhancing knowledge of disease prevention, aging, and chronic disease. They also joined health promoting competition (i.e. daily hiking, weight loss) among stations to encourage individuals and teams to achieve great outcome.

### Results

In September 2015, 42,576 visits were recorded in 59 health stations. 14.9% people were monthly measured. 157 cases received medical referrals. Among 2100 subjects, hypertension rate is 23.6%, 16.4% and 14.1% respectively in 3 quarters. 384 community volunteers were recruited with 801 participations in quarterly training course. 60 volunteers joined in Daily Hiking activities. 146 volunteers participated in a weight loss programme, experienced 273.2kg total weight loss. 85.4% volunteers have changes in health knowledge and heathy behavior.

### Conclusions

Base on the result and health promotion events above, our hospital on behalf of health promotion hospital in north of New Taipei city build positively the partnership with nearby communities. Through the services of local volunteers in health stations, they made their residents healthier in one hand. In the other hand, they acquired health benefits from attending health station. Furthermore, we implement the government policy of health promotion under efficient partnership between communities. Hospital, communities and volunteers formed triple-wins situation.

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## Session O2.4: Organization and management to create a change towards a culture of health

The path to an optimal healing environment in HPH: Understanding employee needs on health supportive environments

GAN Cai Ru, HUANG Yu Hsiang, TUNG Yi Ju, HSU Yu Ching, LIN Ming Nan

### Introduction

We assume stress as a misfit between the demands of the environment and individual's resiliency. In light of the fact that in known that the imbalance may be rectified. By building an optimal healing environment where all aspects of care - physical, emotional, spiritual, behavioral and environmental are optimized to reduce stress and anxiety, promotes health and healing, and importantly, improves patient and employee safety and contributes to cost savings.

## Purpose/Methods

This study aimed to emphasize the concept of individual capacity for health improvement and to focus on health supportive environments. Healthy workplace assessment tools used to explore factors that influence employee health including lifestyle choices, work environment, social support, organizational culture, policies and practices. We tend to better understand the nature and prevalence of initiatives thought to contribute to healthy workplace in hospitals. In addition, open-ended questionnaires were used to determine additional factors and barriers associated with health enhancement.

### Results

A total of 54 respondents and half reported their overall health is good. Meanwhile, 76% thinks that "not being exposed to second-hand smoke" extremely important to improving well-being. A high demands on having a respectful workplace; healthier food options available are also important. In qualitative results, respondents felt that "demanding schedules" as the biggest barrier to being healthy. However, result suggested the need in providing management supports were the most commonly given factor to healthy workplace program efficacy.

## **Conclusions**

Generally accepted components of a healing space that are provides access to nature, light, good air quality, and privacy; pleasant or positive distractions; and reduction of environmental stressors such as unnecessary noise, and toxic or harmful substances. This study finding implies a desire for a change on hospital policy to create healthy workplace. We suggest by integrating workplace health promotion and on-job training or management programs should be taken into consideration.

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Information-sheets on Prevention and Person-centered care for decision-makers, a way to change organizational culture towards health promotion

## KRISTENSON Margareta, KARLSSON Lovisa

## Introduction

The high prevalence of chronic disease gives new demands to health services to help people to have the ability to, in spite of

presence of disease, live an active and meaningful life based on what each individual considers to be important. Moreover, the major part of chronic diseases are possible to prevent by changing of lifestyle. There is today good evidence, both for effects of a person-centered care and for the effects of life style counseling within health services.

## Purpose/Methods

In 2014 the Swedish Ministry of Health and Social affairs devised a national strategy on how to prevent and treat chronic disease. Cornerstones are knowledge basis, person-orientation and prevention. As a part of the implementation of this strategy, the Swedish HPH network was assigned to develop information-sheets for decision-makers and co-workers in health services on person-oriented care and prevention. The aim was to give knowledge, inspire, give arguments and to by this support a change the organizational culture.

## Results

Two information sheets have been developed; "Person-centered care; an effective health care focusing needs and values of the individual" and "Preventing chronic illness through healthy lifestyle - a means to optimize health care". Expert groups described the evidence base, and "Myths and facts" give arguments responding frequents statements e.g. "Prevention is expensive and doesn't pay", "Prevention increases inequality in health", "Person centering puts extra burden on employees", "This is nothing new, we have always worked this way!"

## **Conclusions**

Information is one important way to support change of organizational culture. The two information sheets have been very appreciated and highly sought and the HPH network has now delivered 10 000 copies of each. In addition, brief power point presentations have been developed to assist oral presentations. We have now translated both sheets to English, which will also be available for interested colleagues in the international HPH network. The material shall be presented and discussed at the HPH conference.

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## Using Big Data and Advanced Health Analytics Education to Propel Patient Centered Care

## SMITH Tyler, MCNEAL Gloria

## Introduction

Rapidly growing capabilities to integrate massive and complex electronic data sets have provided many opportunities for patient-centered care. Days of herding populations through a healthcare system fenced off to provide a one-size-fits-all feefor-service model are giving way to value-based payment models.

## Purpose/Methods

Driven by Big Data and predictive analytics, individual level determinants of health are being leveraged to reveal

personalized patient management that considers individual-level disease patterns, high-risk attributes, hospital acquired conditions, and performance measures for tailored treatment approaches.

## **Results**

There is a growing need for health analytics to catch up to the health informatics advancements of the last decade in order to provide greater evidence-based solutions. This discussion presents where we have been, where we are, and the future of leveraging "Big Data" to improve individual health, public health, and health services

### Conclusions

We will also present highlights of the first of a kind health analytics master's level degree that develops health analysts using health data, health quality metrics, and advanced statistical techniques pertinent to healthcare to drive patient-centered approaches.

## Comments

Learning Objectives:

- 1. Discuss briefly the rapidly evolving history of data collection, storage, and analytics.
- 2. Discuss growing data capabilities in health care and why Big Data enables evidence for better patient-centered care.
- 3. Describe how expanding health-focused analytics in education enhances the downstream capability for patient-centered care.

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# Session O2.5: HPH standards and other quality measures to promote health in health services

## Establishment of Japanese HPH Network and Its Future Activities

## **FUNAKOSHI MItsuhiko**

## Introduction

On October 17th, 2015, the representatives of 35 hospitals and health services got together to launch the Japanese HPH Network. It took 7 years to establish the national network since the first Japanese hospital joined the International HPH Network in 2008. What follows is intended to provide a short presentation of the Japanese HPH Network, its future plans and the activities of member hospitals.

## Purpose/Methods

A survey was conducted on the hospitals and health services that are members of the Japanese HPH Network to know their status. Their activities were surveyed by examining the information provided by their coordinators.

## Results

The Japanese HPH Network is made up of 40 establishments (as of January 7th, 2016), which fact makes the Japanese Network the fifth national HPH network in the world. The establishments belonging to the network are very diverse and include hospitals, clinics, pharmacies and institutions for the elderly. In addition to annual conferences, they work on joint research programs with academic institutions and have plans to organize national meetings to exchange good practices with other establishments in the network. They are very active in reaching out to local communities and having health promotion activities together with local residents.

### Conclusions

In Japan, health promotion activities have been mostly carried on by a small number of advanced hospitals. The formation of the national HPH network will allow these hospitals to introduce good clinical health promotion practices from other countries and combine them with those developed by Japanese health promoting hospitals. This might lead to the invention of more efficient and creative health promotion activities. In addition, as Japan one of the most aged societies in the world, we believe it is our responsibility to develop health promotion activities specially designed for the elderly and diffuse them worldwide.

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## Establishing HPH Project in Afghanistan: Challenges and Opportunities

## ABDULLAH Maihan, GRAISER Silke



## Introduction

Being one of the world's poorest countries, Afghanistan has a universal healthcare system even though according to a recent survey, healthcare consumers pay more than 75% of the expenses each year. While communicable diseases such as TB and Malaria are more prevalent, non-communicable diseases are escalating responsible for about 35% of mortality. Considering the low health education/literacy among healthcare providers as well as healthcare consumers, increasing load of patients, and growing job dissatisfaction in hospitals, Health Promotion Department at MoPH initiated HPH project in March 2015.

## Purpose/Methods

The project is piloted in two public and one private hospital to reduce the load of patients, decrease complications of diseases, especially resulting from chronic diseases, and to increase job satisfaction largely through proper health education and communication trainings. The three hospitals located in capital city, Kabul, are selected based on their geographic location representing three different locations of the city. Self-Assessment Tool for Pilot Implementation guide with a slight modification was used for a baseline assessment.

## Results

Ahamad Shah Baba (ASB) Hospital administered by Medecins Sans Frontieres (MSF) gained the highest score of 17.5 out of 51

because a health promotion team already works on some of the indicators. Surprisingly, Ariana private hospital scored the second highest of 14.5 followed by Dasht-e-Barchi Hospital scoring only 7.5. ASB Hospital scored higher in Management Policy, Patient Assessment, and Continuity and Cooperation while Ariana private hospital scored higher in Patient Information and Intervention and Promoting a Healthy Workplace standards.

## **Conclusions**

The assessment shows that some of these hospitals conduct health promoting activities to some extent; however, these activities are not systemic and standardized. Despite enormous challenges, the hospital the hospital administration and other staff in the three hospitals are interested in implementing health promoting activities. However, lack of financial resources and staff is making it difficult to achieve most of the indicators. Considering the huge difference it will make, the government need to develop a policy providing specific resources for health promoting activities in hospitals.

## Comments

This is the first time health promoting activities are conducted in a govt. hospital by the Ministry of Public Health. The presentation will include data on types of patients and top ten diseases in the hospitals. It will also include some indicators from the hospital where health promoting activities are conducted by MSF. In addition, unique challenges and opportunities towards implementation of the project will also be discussed.

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Align the HPH Action Plan with the objective of Health Promotion in the HPH Catalan Network: experience and results

## SANTIÑÀ Manel, JUVINYÀ Dolors, SIMON Rosa, PÉREZ Anna Carol, IBAÑEZ Rocío, BRIANSÓ Maria, SERRA Marisa, FERRET Anna

## Introduction

The main objective of one HPH Regional/National Network is to help to introduce and develop concepts and methods of health promotion in its health system. In this communication we explain the experience and results in the HPH Catalan Network last year

## Purpose/Methods

We elaborated an action plan aligning the lines of action of the HPH with the objectives of health promotion of the Catalan Health Administration. Each line of action has a member of the Governance Board (GB) of the HPH Catalan Network who has the responsability to follow its development. Every month the GB of the HPH Catalan Network has a meeting during which we follow the outcome of each action line. At the end of the year we make a balance.

## Results

In 2014 we accomplished 80% of the objectives of the action plan. We elaborated a new action plan adapted to the changes of the action plan of the HPH and taking into account the instruction of the Catalan Health Administration in relation to this theme In 2015 we are developing a new strategic plan with 5 lines of action and 32 objectives.

## Conclusions

Elaborating a specific and detailed action plan that includes the aims of the HPH facilitates their implementatin in the Regional/National network. In our experience writting on a paper the list of things that you should do with the name of the people who have the responsibility to guide the action in order to accomplish them and with the deadline is a good recommendation. This helps you to achieve your goals because it forces you to be aware of what still needs to be done.

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## Innovative partnership for quality improvements:

## **GUSTAVSSON Susanne**

## Introduction

To work with quality improvements (QI) is becoming a common approach in healthcare, driven by challenges such as future patients' desire an enlarged impact on their health situation and care and demanding higher quality of care. In addition, there are challenges in healthcare such as fast technical development; decreasing resources, and an increasing elderly population. Recently, there have been a focus on patient involvement even in QI. However the field is still short of practical examples and research.

## Purpose/Methods

The purpose of this paper is to explore contributions and challenges of patient involvement in QI. The research is mainly based on action research in a specific hospital setting - built on learning in action. The empirical material was predominantly generated by qualitative methods and analysis.

## Results

Patients' experiences contributes with improvement areas, which are difficult for healthcare professionals to identify. In addition, illuminates the importance of viewing care from a patient perspective, which helps overcome existing gaps in the organizational structure such as separation into different wards. However, there are also challenges. First, patient involvement in QI challenges current roles for patients and healthcare professionals as it supports a strengthened patient role. Second, it decreases the power asymmetry in the relation between healthcare professionals and patients.

## Conclusions

The findings demonstrate that patient involvement in QI makes a difference. Additionally, illuminates a need for healthcare professionals to reconsider changing their existing relationship to patients from creating value for patients to creating value with

them. The research in this paper contributes to the theoretical field of improvement science in healthcare and with practical examples of patient involvement in QI of value in practice for healthcare professionals supporting a health promoting care.

#### **Contact: GUSTAVSSON Susanne**

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## Using the Methods of Quality Control Circle to Improve the Referral Rate of Cancer Screen

#### LO Ching-Hsuan, LI Dian-Kun, HUNG Chao-Chen, LI Yen-Yu, LIN Chin-Yao, CHIEN Sou-Hsin

#### Introduction

In Taiwan the free mass cancer screen program is implemented and sponsored by the Health Promotion Administration (HPA), Ministry of Health and Welfare. The government sets the goal of cancer screen case number for each hospital participated in the program every year. We used the methods of quality control circle to improve the referral rate and the target number of cancer screen.

#### Purpose/Methods

At first we used the questionnaire to survey the causes of referral failure. We used the methods of quality control circle (QCC) including cause & effect diagram, Pareto chart, and screening analysis. We proposed four improvement plans to increase the referral rate. The plans include the followings: automatically print cancer screen sheet at clinic by the computer program updated by the HPA database, increase the incentive of referral, mobile working stations, and public health education lectures.

#### Results

The referral rate before this program was 1.65%. After the implantation of QCC programs, the referral rate was 6.88%. The referral rate in the next year increased to 10.71%.

#### Conclusions

We successfully improved the referral rate of cancer screen by the methods of quality control circle.

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#### Session O2.6: Effect of Built Environment on health and wellbeing

## Design of the built environment through a "Culture of Health" lens

#### SALVATORE Alberto

#### Introduction

This presentation will address the expansion of the "Culture of Health" concept beyond the operational considerations related to a specific clinical program type, to a lens that is used to affect the design decisions we make in the design of the built environment to support these clinical programs. A great portion of our time is spent in the built environment. (Both inside and outside) An increased level of rigor should be used to inform the designs of these environments to enhance their ability to support well-being.

#### Purpose/Methods

Re-definition of health to include health factors: Along with Clinical Care they include Health Behaviors, Social and Economic Factors and the Physical Environment. These health factors all occur in the built environment. Identifying the "Culture of Health" interventions in the functional program, as the basis for design, and the metrics that will be used to evaluate their ability to affect the hypothesized outcome, increases the likelihood of the design of spaces and places that can have a positive impact on our individual and community health.

#### Results

There continues to be emerging evidence that supports that if the built environment addresses: increased exposure to natural light, the coordination of the functional operation with the layout, access to nature, water and air quality, the need for collaborative human interaction, safety and security, cultural responsiveness, exercise, art and music, there will be positive physiological outcomes.

#### Conclusions

Utilizing a "Culture of Health" lens to inform design decisions is the next logical step in the increase level of rigor that we bring to the design process. This increased level of focus has a DIRECT relationship with and impact on the health of the people who experience these spaces.

#### Comments

We are all designers of world health. With our view through the "Culture of Health" lens we can design healthier spaces to live, work and play. The outcome can only be improved health all. This approach builds directly on the accepted concepts of using an Evidence-based design process to create a total Environment of Care.

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## Salutogenic Design: Healing Gardens and Imaging Redesign

#### **HANKINSON Mary Therese, PLATT Lisa**

#### Introduction

VA New Jersey Health Care System (VA NJHCS) used concepts of Salutogenic design for healing gardens and redesign of an Imaging Department. Studies suggest providing patients, families and staff with physical access to nature, views of nature through windows, and artwork of natural scenes can relieve stress (Dilani A., 2009; Ulrich, et.al. 2004; Schweitzer, et.al.2004). Certain healthcare environments such as Imaging which are often windowless and dominated by technology environments can be perceived as particularly intimidating to patients (Quan, 2012).

#### Purpose/Methods

Using credible research and Planetree Analysis, Component Mapping and Charrette process, including frontline staff and Veteran participants, VA NJHCS developed conceptual plans for healing gardens serving patients, families, and staff from multiple departments. Redesign for the existing Imaging department has been in collaboration with The Center for Health Design (CHD) utilizing Pebble Project methodology for evidence-based design. The aim of both of these projects has been to create more human-centered design to improve care quality and experience outcomes.

#### Results

Planetree's process ensured healing garden design included a basis of research, co-design by patients and frontline staff, environmentally sustainable operations and design elements to support ten Planetree components. The redesign for Imaging includes a patient-centered approach incorporating healing attributes of sound, light, color, and artwork in addition to environmentally conscious building practices. Measurement of outcomes based on the creation of a healing environment includes changes in patient/employee satisfaction, decreased need for sedation, and changes in rate of cancelled/terminated procedures.

#### **Conclusions**

Methods used for designing these spaces relied on credible evidence including both qualitative/ quantitative data, participatory and holistic design for healing spaces. Due to the reliability of this approach to produce meaningful patient care outcomes (Stone, 2008) and improve potentials for design buyin from both patients and staff (Liddell, 2010), it is reasonable to presume that ongoing measurement of both staff/Veteran engagement and quality outcomes will reflect this at least in part. (Citations available upon request).

#### Comments

Presenters: Mary Therese Hankinson, MBA, MS, RD, EDAC, CTP is the Director, Patient Centered Care/Planetree at VA NJ Health Care System. Lisa Platt, MS, CPC-PI, CSSBB, EDAC, LEED AP BD+C is the Director of Business & Product Development for Planetree.

#### **Contact: HANKINSON Mary Therese**

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#### **Healthy Environments for Autism**

#### **BLACK Jaques**

#### Introduction

This presentation explores the dynamic between the built environment and the behavior of individuals with ASD. By understanding Autism's mechanisms and the consequent needs of the autistic user, the environment may be designed to create an environment conducive of skill development and learning. A case study of the specific issues related to the design of environments for persons on the Autism spectrum (The Center for Autism and the Developing Brain at NewYork-Presbyterian Hospital) will also be presented.

#### Purpose/Methods

- \*Balance Environmental Concerns With Therapeutic Needs
- \*Gain Sensitivity to Environmental Concerns Related to Autism
- \*Understand Specifics of Spatial Needs \*Gain Awareness of the Current Trends

#### Results

A deep understanding and experience of appropriate space for patient and family + working hand in hand with the clinician's and treatment specialist = a safe and functional space for learning

#### Conclusions

\*Few design precedents \*Space can affect behavior \*Environment matters \*Positive space + clinical intervention = successful program

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## Session O2.7: Considering the spectrum of health promotion at the workplace

Return-to-Work Barriers of Patients with Oral Cancer Caused by Betelquid Addiction: Health Inequality of Hospital and Community
Rehabilitation in Taiwan

#### CHANG Sheng-Kun, LIN Yu-Shu, LIANG Jia-Ying, CHI Wei-Hsian

#### Introduction

Head and Neck Cancer is always ranked as the top ten common cancers in Taiwan. Betel-quid chewing is the dominant underlying cause of oral cancer. With the support of Taiwan's National Health Insurance(NHI), the survival rate and quality-adjusted life expectancy of patients with oral cancer are fine; however, the return-to-work (RTW) rate is poor, which has negative economic impacts on families.

#### Purpose/Methods

This study aims to explore three issues: (1) social context in betelquid addiction, (2) cancer rehabilitation experience in hospitals, and (3) community rehabilitation. Participant observation, in focus group, in-depth interview, and textual analysis were conducted in this study.

#### Results

1. Betel-quid chewing is still significantly widespread among Taiwanese laboring classes. 2. Oral cancer rehabilitation is included in NHI coverage with unclear instruction for methods and intervention. Some hospitals even lack the related policy. 3. The NGO "Sunshine Social Welfare Foundation" dedicates in community rehabilitation among these patients. On the other hand, only limited amount of assistive devices are available in public due to lack of social policy. There is no any vocational rehabilitation for patients with oral cancer.

#### Conclusions

Betel-quid consumers are mostly those from lower social strata. Without the public support, their community rehabilitation is still lacking. The hospitals have even no enough resources to provide complete or proper rehabilitation. The vocational reconstruction is totally excluded from the public sector. The process of suffering, cures, and returns to the community and working career is related to the issue of health inequality.

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## Code Lavender and Oshibori with Aromatherapy

#### **MICHAEL Arielle Faith**

#### Introduction

Frequently during the care process, the stressful circumstances of patients' conditions or treatments may leave them overwhelmed and seeking emotional or spiritual assistance. In these situations, hospitals and health systems can improve patient satisfaction by implementing Code Lavender - a holistic intervention designed to rejuvenate and support patients during difficult times. The intervention has proven so successful for some organizations that it actually sees heavy utilization among staff as well as patients. North Hawaii Community Hospital (NHCH) - a 35-bed acute care hospital and the creator of Code Lavender - has been utilizing this intervention for over a decade.

#### **Purpose/Methods**

Developed in 2004 by staff members at NHCH, Code Lavender is a call for support and prayer that can be initiated by patients and employees for themselves, colleagues, friends, family members, or upcoming events. Originally known as "Patient Lavender," the service came to be known as "Code Lavender" to more accurately reflect the gravity of these requests. To initiate a Code Lavender, the individual submits the date, time, and purpose of the request to NHCH's Holistic Care Services Department. The person for whom the request is being made must give permission in order for the Code Lavender to occur. If the individual is unable to do

so, a family member can grant permission. Following an announcement shortly beforehand, available staff and others who wish to attend the service then gathers in NHCH's chapel. The Code Lavender intervention consists of sharing that request's purpose, a prayer and presenting a prayer blanket sewn by community members and blessed by local churches. Patients and staff members may request a clergyperson of their choice for the service. Other care services such as aromatherapy and Oshibori - a Japanese hot towel therapy - are made available through Holistic Care Services.

#### Results

The steady decline in the number of Code Lavender requests by staff members (from twenty one in 2012 to six in 2015) highlights the intervention's ongoing effect on improving morale and strengthening the culture of care. At first, people wondered if Code Lavender was connected to a specific religion or spiritual practice. But when they saw it was about bringing people and their positive intentions together, that generated a lot of support and participation. In addition to complementing the holistic care culture at NHCH, Code Lavender has bolstered staff members' morale. By bringing staff members together in a safe space to share their thoughts and provide emotional support, Code Lavender has helped reduce stress and fatigue, as well as strengthened bonds between staff members at NHCH. After being acquired by the Queen's Health Systems - a large health system based in Honolulu, Hawaii - NHCH scored the highest among its member organizations for patient satisfaction, demonstrating the positive impact of Code Lavender and NHCH's other holistic integrated therapies (e.g. Oshibori with aromatherapy).

#### Conclusions

Spirituality is an integral part of the Hawaiian culture. The components of a Code Lavender reflect who we are and our commitment to be there for each other in times of need. Our staff members have come to fully support and embrace it. Implementing Code Lavender reinforced NHCH's mission to provide patients with a blended-medicine healing environment. In keeping with this open philosophy and to meet the differing needs of individual patients and staff members, the Code Lavender service is non-denominational and can be tailored to accommodate the wishes of the individual for whom it is being held. Code Lavender brings the 'ohana' - Hawaiian for 'family' together in times of sorrow and in the face of immense challenges. This has formed a strong, heart-centered connection between our staff members and gotten us through both professional and personal challenges.

#### Comments

The support and enthusiasm for the Code Lavender process is shared by Administration and the Leadership Team at NHCH, who often join Code Lavender services. By participating in these interventions and championing the program, leaders at NHCH reinforce the hospital's vision, mission, and spirit-centered culture of care. For leaders looking to improve patient and staff member satisfaction, the holistic practices of North Hawaii Community Hospital can serve as a helpful example. By integrating Code Lavender into its culture of care, North Hawaii Community Hospital is supporting staff members and patients through the challenges of the healthcare environment.

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## Session O2.8: Self-Awareness through Values and Emotions (SAVE)

Self-Awareness through Values and Emotions (SAVE)

#### **SULHEIM HAUGSTVEDT Karen Therese**

The session will be chaired by Karen Therese Sulheim Haugstvedt. Karen is a physical therapist who has specialized in treating children with disabilities. She also holds a master's degree in special education. Over the past 15 years, Karen has developed, implemented and examined a number of educational group-based counseling programs tailored to various groups of patients living with long-term health problems and their relatives. These programs were developed within the Center of Health Promotion at Akershus University Hospital.By joining this workshop, participants will obtain knowledge and skills from various group counseling methods used to promote increased self-awareness. By increasing individual self-awareness, group members become better able to articulate their own needs. Furthermore, they discover resources they did not know they had and envision new possibilities in life. Health promotion is "the process of enabling people to increase control over, and to improve, their health" (World Health Organization). Core concepts in health promotion are empowerment and participation.Patient engagement is an important piece of this. Increased patient engagement can lead to empowerment, greater ability for patients to manage their conditions and improve health outcomes. We want to again, highlight the importance of enhanced self-understanding as it relates to the individual's ability to articulate their own needs, take an active role in their healthcare and live a better life. Our research focused on examining the participants' processes of change, particularly their enhanced ability to take care of their resources. It also focused on the increased number of possibilities gained from becoming more aware of themselves. We found that participants from different groups in several different projects reported similar processes of change. During our 8-year follow-up, participants could describe specific changes they made in their everyday life after the program. Through individual exercises, self-reflection, and by sharing their experiences with others in a similar situation, participants experienced enhanced selfunderstanding. In this workshop we want to present our research, and invite you to try out some of the practical methods we have used in our counseling groups to foster an increased sense of self-awareness. The workshop will also provide you with the unique opportunity to meet and learn from some of the individuals who had previously participated in the program. Itinerary for WorkshopWelcome (5')Participants from different educational group-based counseling programs share their experiences (15')Health promotion/patient engagement & cooperation with Mayo Clinic (15')Research background and development of the methodology (15')Trying out practical exercises from the group-based program (40')Links to adolescent group films with English subtitles Strong-willed adolescents with long-term health problemsTogether, we are incredibly healthyTogether, we are more self-awareTogether, we see new opportunities

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# Session O2.10: Symposium: The WHO HPH Recognition Project on Fast-Track Implementation of Clinical Health Promotion: Status and first results

Symposium: The WHO HPH
Recognition Project on Fast-Track
Implementation of Clinical Health
Promotion: Status and first results

#### **SVANE Jeff Kirk**

The WHO HPH Recognition Poject is an international, multicentre RCT that introduces systematic implementing health promotion into clinical hospital departments. and health services. The WHO-HPH Recognition Project is finishing in 2016. Though it did not reach the full intended number of departments, the study, with it's 48 included departments, is still the largest RCT in it's field world wide. The background for not including more departments was the 2016 WHO project to update and revise the WHO HPH Standards to include primary care, and the changes this might cause to the core tool used in the RCT. In this symposium, we will present the experiences from departments and countries that have participated discuss the international RCT. We will also discuss results from publications on the study - both national and international. The presentations will focus on sharing knowledge on fast track implementation of clinical health promotion activities, health promotion quality management and prospective benefits to obtain. The symposium will finish with a more general discussion among the participants and speakers of further perspectives, possibilities and challenges.

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## Session O3.1: Promoting health through equity in healthcare

#### Skip for Fun and Fund

#### ANG Yen, CHUN Teik Lan, SEE Wee Dee, GOOI Jayce, LIANG Danielle, LEE Charlotte, MAHMOUD Talal

#### Introduction

Coronary heart disease claimed about 23% of all deaths in Malaysia in 2014, making it the number one killer in the country. Public health knowledge about the etiology and prevention of the disease is lacking in Malaysia. Our aim is to seek some high profile public event and use it as a platform to raise awareness and to educate the public about the disease, at the same time to raise fund for the heart patients who are too poor to pay for medical treatment.

#### Purpose/Methods

On World Heart's Day, September 27, 2015, we organised a "Skip for Fun and Fund" public event. Skipping was chosen because it is an exercise great for cardiovascular health. To make the event fun, we created 3 categories of skipping which the people could participate in: 1) pledge for skip--donate for other people to skip; 2) max number of skips in 5 minutes; 3) creative skip. To promote the event, we employed multimedia avenues; Email blast, Social media, Facebook, YouTube (where we created a special ninja skipping video), and a press conference.

#### Results

The event attracted some 100 people (children and adults) from the public, with about 50 skippers participating in the competition. A free health screening which included finger-prick glucose and cholesterol check and basic diet counselling were given to the public. A patient who recently underwent a successful heart surgery and is living a healthy lifestyle was being featured on that day. Our cardiothoracic surgeon was invited to speak at the event on cardiovascular health. Public response to our call for charity exceeded our goal where about RM200, 000 was raised for heart patient fund.

#### Conclusions

Penang Adventist Hospital is a not-for-profit hospital that believes in equity in health care, that is, quality medical care should be made available to everyone including the poor. The "Skip for Fun and Fund" event provides a great public health education opportunity to engage the community in the actual exercise, and to educate them about heart disease. Most importantly it provided a chance for the public to participate in a charity that provides medical care to the poor.

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## **Expanding Language Access through Dual-Role Medical Interpreter**

## Programs: the LINCC Program at Christiana Care Health System, DE

#### **ORTIZ Jacqueline**

#### Introduction

Effective and safe communication between providers and patients has an impact on patients' capacity to understand their medical conditions, follow through with plan of care, make medical decisions and participate in preventive care. About 9% of United States population is considered of Limited English Proficiency (LEP) in 2013. Language barriers lead to healthcare disparities by compromising access to care, quality and safety. Due to various barriers health systems encounter difficulties in securing an appropriate supply of medical interpreters to meet the growing demand from an increasingly diverse patient population. Christiana Care Health System developed its own cadre of qualified medical interpreters by tapping its own bilingual personnel.

#### Purpose/Methods

To address the growing demand for medical interpretation, the Language Services department at CCHS developed and implemented a dual-role medical interpreter program called LINCC (Language Interpreter Network at Christiana Care). This program qualifies bilingual personnel from the health system's staff as medical interpreters. The program includes (1) rigorous language testing (2) formal medical interpreter training (3) interpreter skills testing and (4) compensation.

#### Results

56 individuals graduated as LINCC interpreters in 16 languages including: Spanish, Mandarin, Russian, Arabic, Korean, Gujarati, Hindi, Malayalam, Urdu, Portuguese, Akan-Twi, Swahili, Yoruba, Tagalog, French, and Haitian Creole. LINCC has increased the supply of medical interpreting at CCHS an average of 150 encounters per month since October 2014. LINCC candidates overwhelmingly evaluated the program as excellent (97%). Since October 2014, the LINCC program paid \$28,000 in stipends. The equivalent amount of interpreting delivered by an external language services agency would have cost \$80,000. LINCC candidates overwhelmingly evaluated the program as excellent (97%).

#### Conclusions

Dual role medical interpreter programs provide significant benefits for enhancing language access for limited English proficient patients and reducing healthcare disparities, including: increased speed for accessing interpreting for less-frequently encountered languages, more effective communication between providers and patients when telephonic or video interpreting is not available (or appropriate), greater employee engagement and cost reduction for higher quality medical interpreting.

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## Establishing the Foundation of Medical Service in the Tribe: A Cross-Cultural Pattern of Health Promotion

#### **CHEN Hsiao-Chi**

#### Introduction

The destruction of the indigenous people's homeland and the invasion of other cultures continually affect their health and wellbeing. With the decline of indigenous culture and the collapse of tribal economy, individuals are exposed to unhealthy risk factors, such as substance abuse, unbalanced diet, accidents, and etc. The severity of these problems calls our attention. We argue that by analyzing the narrative from the Tayal tribes at Wulai can contribute in improving health services by incorporating cultural sensitivity and competence.

#### Purpose/Methods

Our purpose is to explore the indigenous people's medical experience in the context of the implementation of mainstream health care. By using anthropological approaches and documentary data analysis, we record the context in which conflicts, cultural shocks and personal desires occur. In addition, we try to show that summarizing and analyzing the ethnographic writing and fieldnotes is a significant way to create a comprehensive cross-cultural care plan that can create the health service flexibly to satisfy the indigenous communities' needs.

#### Results

The results suggest that the following health delivery services are what tribes want to have: (I)Eliminating four barriers resulting in health inequity (economic inequality, the accessibility of health services, language, and culture concepts). (II) Preventing the temporary termination of national health insurance. (III)Disease and case management contributing in reducing local mortality, the prevalence of chronic disease, mental disorder, and cultural dilemma. (IV)Health care for special populations like children, youth, women, elders, people needing long-term care, community-based rehabilitation, and etc.

#### **Conclusions**

This research shows that the proper way to assess the degree of the indigenous people's acceptance of health care is by analyzing their subjective narratives. The professional interventions must follow the tribal culture and provide proper empowerment and assistance by legitimating programs and connecting resources according to the tribe's viewpoints, and implementing case management with tribal communities. Moreover, government agencies and medical staff must integrate cultural subjectivity and professional skills to provide unique health promotion programs to care special populations.

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## How can Health Promotion promote Equity in Health?

#### **BISHARAT Bishara, SAMAWI Samar**

#### Introduction

The National Healthcare Law in Israel that was implemented 1995, has indeed enabled the development and support of an excellent healthcare system and significantly improved the health level of the general population in Israel. However, if before the implementation of the law one expected that it reduce inequalities in health, specifically life expectancy and infant mortality, we have seen quite the opposite – inequalities have increased, despite a dramatic improvement was manifested in the life expectancy and infant mortality trends

#### Purpose/Methods

In Order to promote equity in health, the hospital promotes health. Health promotion (HP) addresses the unserved and weak population with low health literacy and can improve quality of lives and impact the health indicators positively. Diabetes, obesity and lifestyle are the most prominent health problems among the Arab population in Israel. Promoting these issues by raising awareness on the use of health services, health literacy can promote equity in health and the absence of systematic disparities in health

#### Results

This process needs time to evaluate the input, but we can evaluate process indicators. Our assumption is that the change we're experiencing, of people habits and lifestyle and the impact on service providers, like food manufactures, can reduce disparities during the coming years. HP programs became a tool in our hospital, the leading hospital in promoting the Arab Population Health suffering from inequity. This experience impacted other entities' attitude on health equity, e.g. medical schools

#### Conclusions

Equity is an ethical principle. Exploring ways to "fight" inequity is obligatory. Health promotion activities in the Arab community in Israel that suffer from inequity in health can decrease disparities and the increasing rise in the trend of the health problems occurrence. Also, leading the population to a proper use of health services and preventive medicine available can reduce the unnecessary use of services and resources that anyway need affirmative action. HP can optimize the use of the current services available

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## Session O3.2: Promoting health in and with the community

Community Needs Assessment:
Promoting Population Health in rural
Guatemala by Identifying Health
Disparities and Implementing a
Maternal Child Health Clinic

### COLE Michelle, YOST Eileen, SESSLER BRANDEN Pennie, GUNTHER Christina

#### Introduction

Members of Sacred Heart University College of Nursing (CON) have a collaborative relationship with NGO and municipality organizations in several rural communities in Guatemala. To facilitate identifying the health needs of the community, a plan to interview members of the public was presented to the mayor of a Guatemalan town by the CON faculty and was accepted. After establishing the priority health care needs of the people, an agenda for care could be established.

#### Purpose/Methods

The CON faculty and staff conducted a community needs assessment in collaboration with the local municipality in Pastores, Guatemala to identify the priority healthcare needs of the people. The team randomly asked families to respond to a community health "census" that was adapted from the World Health Organization (WHO). All families verbally consented. The survey included 60 questions with inquiries about their living environment, educational level, employment status, health status, birthing practices, and where they obtain their health care.

#### Results

The results of this community assessment are based on self-reported responses from 40 families interviewed. The results of the survey highlighted the substantial concerns for respondents' economic situation, health of their families, and lack of access to full healthcare services. Data from the community needs assessment were reviewed by the local municipality. Focus of care delivery priorities were determined and a future collaborative agenda was established.

#### **Conclusions**

The identified priorities, as determined by the local municipality, culminated in a community based women and children's health clinic. The culturally sensitive provision of care was a collaborative effort which included a local Guatemalan physician, the local municipality and NGO. In partnership, care was provided and the goal of creating a sustainable program with continued coalition building was established. Based on our data, the potential implications for future health care improvements and sustainability in resource poor communities are significant.

#### Comments

Information and data obtained from the survey and clinic will be summarized.

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How can the concept of organizational health literacy (OHL) of hospitals be adapted to settings of youth social work? Preliminary results of the project evaluation

### WIECZOREK Christina, GANAHL Kristin, DIETSCHER Christina, PELIKAN Jürgen

#### Introduction

Health literacy (HL) has been identified as a major predictor of health- and healthcare-outcomes. HL of youth is specifically important because of its long-term health-impact in later life. HL depends on both personal competences and situational demands to find, understand, appraise and apply health-related information. To improve HL, organizational demands must be adapted to the competences and needs of their target groups. A project to advance OHL of youth social work settings was started, building upon the Vienna Concept of Health-Literate Healthcare Organizations (V-HLO).

#### Purpose/Methods

The project aims to develop and disseminate guidelines on OHL for youth social work settings. It started in autumn 2014 in three federal states of Austria and is currently ongoing. Phase 1 included several workshops aiming to introduce the concept of OHL to youth workers and to develop their own understanding of it based upon V-HLO. The evaluation of this project phase is mainly based on documentation sheets administered by project facilitators and on the participants' feedback forms.

#### Result

Interim outcomes indicate that youth social workers find the concept of OHL appealing and see many overlaps with their practices. With their professional focus on individual encounters, and since organizational development does not have a strong tradition in their institutions, they seem to have difficulties to develop an adequate understanding for the importance of the organizational context. It appears easy for them to invent specific interventions to improve the HL of youth, but they hardly consider the underlying organizational structures.

#### **Conclusions**

OHL seems a universal concept that can be adapted to different types of organizational settings, although with different priorities and with different tools: while quality management is an important partner to implement the concept in hospitals, more informal structures are required for youth work. Finally, project makers should learn that it seems important to ensure a sufficient level of understanding for organizational functioning and development (OD) before introducing a complex concept like OHL that builds up on OD.

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The Effectiveness of "Mackay energy 2K" Series of Programs

HWANG Lee-Ching, LEE Shu-Chen, HUANG Wei-Hsin, CHEN Yu-Hua, LIANG Li-Jen, CHUANG Jui-Yun, CHANG Chia-Mei, CHAN Hsin-Lung, CHANG Betty Chia-Chen

#### Introduction

Mackay Memorial Hospital started a series of "Mackay Energetic 2K" activities since 2012 in accordance with the strategies from the Ottawa Charter. The series of activities covered from building of a walk-friendly environment to executing fitness walks, healthy diets, and weight management. In 2015, we initiated the 5th step -- "Healthy 333 – Mackay Health Enrichment Project", which combined the elements of healthy diet, exercise, and weight control, in the hope of allowing participants to actively change their lifestyles, thus fulfilling the core belief of health promoting hospital.

#### Purpose/Methods

The purpose of this project is to have participants be actively involved in developing healthy diet and exercise habits, weight control, and health self-awareness through professional counseling and team efforts. Methods: "Healthy 333 – Mackay Health Enrichment Project" requires each team of at least 3 people to achieve weight reduction of 3%, complete at least 3 fitness walks, and search for 3 healthy restaurants. Hospital staff members and community groups were invited to participate. Anthropometric measurements and health surveys on diet, exercise, and health self-awareness were carried out before and after the project.

#### Results

There were a total of 48 teams and total of 166 participants. After statistical analysis, we found that those who like oily foods dropped by 51.5%, those with late-night supper habits dropped by 72.2%, those with snack habits dropped by 66.7%, and not one person had the habit of skipping breakfast or eating less than one vegetable serving per week at the end of the project. Those with daily soft drink habits dropped by 43.3%, and those who choose low-calorie, low-salt foods dropped by 49.8%. Those who exercise daily increased by 43.0%, and more than half of the participants chose fitness walks as their mode of exercise. There was an increase in people who reached moderate level of exercise, and those who did not have an increase in their exercise intensity level dropped by 13.0%. Both body weight and BMI significantly decreased (p< 0.05). As for health self-awareness, those who believed they are healthy increased by 30%, and those who believed their health status were better than that of one year ago increased by 40.9%. Those who believed their level of happiness improved increased by 28.3%, and were better than that of those their own age increased by 56.1%.

#### **Conclusions**

Participants showed significant improvement in diet, exercise and health self-awareness. They were able to develop regular exercise habits, correct their dieting habits, and also control their body weight. Hospital staff members believed they not only became healthier by joining this project, but also made friends along the way. Working as a team allowed participants to reach their goals easier. Participants were able to develop healthy lifestyles, as well as close bonds with each other, reflecting the core value of a health promoting hospital.

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## Impact of Culture on Health Promotion in the Arab Culture

#### **BISHARAT Bishara, SAMAWI Samar**

#### Introduction

The diverse population in Israel and the Galilee in specific motivates us to be an arm of reconciliation in the field we are expert in - Health. The Nazareth hospital welcomes everybody and takes into consideration that the audience comes from different background and need to be culturally understood. The diverse population of the local population means diverse cultures that need to be addressed according to the population profile. The population in the Galilee is mainly Arabs and Jews

#### Purpose/Methods

In Order to promote health in an Arab conservative community we need to approach leaders because of the collective behavior, the individuals are influenced by the community decisions and also have a sense of respect for the authorities. Health education is a successful tool because of the respect gained by the community to the health workers, especially physicians. We assume that using only written material as an intervention tool, isn't an effective way to change behavior in the community

#### Results

Recruiting leaders, like the mayor, minister and religious leaders resulted fast change in the people behavior. The use of written material was good for certain kind people who weren't the majority of the population. To be able to influence Health literacy, a major focus should be on health professional behavior and devoting time to explain and listen. Culture influences health through: Positive or negative lifestyle behaviors, health beliefs and attitude, communication patterns, including language and modes of thinking

#### Conclusions

To be able to influence Health literacy, a major focus should be on health professional behavior and devoting time to explain and listen to the patients. Health professional should use the impact they have on patient in the Arab community and speak their language and understand their culture. Clinicians who are not aware of their own cultural biases may impose their cultural values, beliefs regarding health and death, attitudes, and lifestyles on other people and their impact will be less

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## Session O3.3: Promoting physical and mental health of staff

Hospitals Support Health Promotion in Technology Industry: Obesity Awareness Programs

#### TSENG Chun-Han, HSIEH Hung-Yu, CHANG Yu-Lan

#### Introduction

The health of Employees is the most valuable asset of the company. To enhance the efficiency at workplace and to lower the resigning rate, it is crucial to stress the importance on a healthy working environment and the prevention on Employees' obesity. According to the statistic of one technology company in Xindian in 2015; it shows 27.2% of Employees are overweight and 18.6% are obese. To prevent Employees' obesity awareness, Cardinal Tien Hospital designed a wellness program assisted by professional medical team.

#### Purpose/Methods

The following program is organized in accordance with The Ottawa Charter. Build Health Public Policy: To publicize in meetings led by Heads of Departments. Strengthen Community Actions: Small support groups assist to participate with an affective reward system including tasks (healthy diet, exercise, and weight measuring) are required to completion. Create Supportive Environment: Assist restaurants to label calories. Display "calories burn indicator" signage on each staircase in Hospital. Develop Personal Skills: to schedule healthy diet and effective exercise lessons.

#### Results

Number of the company Employee participants is 55 (35 males and 20 females), and is divided into 11 groups, with an average age 36.47±7.31 years old. After a three-month program. The participants weight change was 66.07±12.34kg to 65.13±12.53kg, BMI were 25.36±3.99kg/m2 to 25±4.11kg/m2, body fat from 30.58%±5.12% to 28.67%±5.48%. The change of weight loss, BMI and body fat between pre-test and post-test with paired-t test statistical method showed significant improvement(p<0.05).

#### **Conclusions**

To promote the concept of Community Health, local Hospitals take actions in scheduling health promotion activities. Tasks designed by professional personnel, sports trainers, nutritionists, and doctors: healthy diet, exercise and weight measuring. Nurses of the company monitor tasks regularly. Employees take initiatives to participate, monitor one's progress, and establish a health awareness workplace environment. The most efficient groups are rewarded. The goal is to promote the awareness of obesity at workplace, as to solve any further related health problems encountered.

#### Comments

Every corporation should encourage and reinforce a healthy workplace environment as one of the main goals in order to maintain Employee's health wellness through various health channels and supporting groups. The program is to promote health awareness at workplace. It helps Employees to have a sense of attachment to the company and affectively lowers the resignation rate, sick leaves, work injuries, and expenses on chronic diseases. The outcome benefit both Employers and Employees.

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### Stairs climbing as a health promotion method

#### CHUANG Chin-Ru, LIN Mei-Wen, YU Shu-Chuan, KUO Ying-Ling, HUNG Ling-Yu

#### Introduction

According to a questionnaire done in 2014, 45% of the employees of our hospital exercise regularly (more than 3 days a week), and 67% of the employees think they lack exercise. Most of the medical workers don't have the habit of regular exercise due to busy and long hours of work. We try to create an exercise friendly environment with this program.

#### Purpose/Methods

Sign-in sheets were put in 39 staircases of our hospital for the whole July 2015. Employees could collect one point for one sign-in while climbing stairs. Gifts were offered with enough points at the end of the program.

#### Results

A total of 331 staffs, 49% of the employees, participated in this health promoting program. 5.6 floors were climbed per person per day in average. 291 employees completed a survey in August 2015 and showed that the frequency of using the stairs '5-6 days per week' increased from 24% to 27% and 'everyday' increased from 19% to 27% compared to the previous year.

#### Conclusions

We create an innovative health promotion program in hospital and increase the employees' interest in stairs-climbing significantly. It's easy to do, fun, and with little cost. But it's time-consuming to check and change sign-in sheets and calculate points for participants. We hope to do the program more efficiently with electronic products in the future.

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## Application the general health questionnaire to measure the staff's mental health

#### GAN Cai-Ru, LEE Chen-Lin, LIN Ming-nan

#### Introduction

All of us are affected at one time or another by work related stress. The relentless requirement to work at optimum performance takes its toll in job satisfaction, employee turnover, reduced efficiency, illness and even death. Absenteeism, bad or snap decisions caused occupational harm, or lack of motivation are all by-products of an over stressed workplace. The importance of early recognition of the signs and symptoms of stress and perceived health should be emphasized.

#### Purpose/Methods

We understand stress in the workplace can have many origins or come from one single event. Purpose of this study was to understand the current psychological well-being status of hospital employees and to raise the individual awareness on stress. In this study, General Health Questionnaire (GHQ-12), a self-reported screening tool, with five-point Likert scale, tailored for use in clinical settings aimed at understanding individuals' status of psychological well-being. The instruments were administered through surveys and participation was voluntary.

#### Results

Demographically, 72% (n=112) of participants are female and 56% aged between 25 and 40 years. Statistical analysis of 3 statements showed higher means "feeling unhappy and depressed" (3.78); "loss of sleep over worry" (3.98) and "losing confidence" (3.89). The scores on GHQ-12 were found to be much higher (indicating lower mental health). Analysis of variance (ANOVA) revealed that there were group differences. The Tukey test show that the significant difference was between nurses on the one hand and administrators and physician on the other.

#### **Conclusions**

Initiatives designed to prevent and/or reduce employee stress should be high on the agenda of workplace health promotion programs. It is essential that action be undertaken and needed to identify and address problems at the level of the organization and the environment, with a view to preventing stress at work. Interventions can be developed to help individual employees coping with stress. Assistance can be provided to employees to help cure the symptoms of stress and to create a stress-free workplace.

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## Addressing Physician Burnout in a Planetree Hospital

### HOROWITZ, MD Steven, CHOI, MD Joonun

#### Introduction

Physician burnout has reached epidemic proportions and continues to grow despite increasing awareness of its importance. Not only are physicians negatively impacted by burnout but patient care, physician engagement and hospital revenues suffer. Multifactorial etiologies include: loss of autonomy and life balance, increased time and financial pressures, the electronic medical record and political and bureaucratic intrusions that extend into the examination room. To date, no single measure or strategy has been successful at reversing the incidence of physician burnout.

#### Purpose/Methods

Stamford is a 300-bed, Planetree designated teaching hospital. A physician's Planetree committee was created with representatives from Medicine, Family Practice, Emergency Department, OB/GYN, Pediatrics, Cardiology, Radiology and House Staff. One purpose of the committee was to identify opportunities to improve physician well-being and understand

physician reluctance to seek help through available counseling services and web-based health sites. Team building, off-site physician dinners were held for CME credit with physician speakers and representatives from the arts, with evaluations handed in afterwards.

#### Results

Starting with the first Committee meeting, it became obvious the physicians needed a safe haven to share life and professional experiences with a group of peers. Within the safety of these confidential meetings physicians broke through their traditional isolation, often sharing traumatic life experiences for the first time and relying on each other for support. In addition, the offsite dinners were well attended with the majority of participants filling out evaluations; the evaluations were overwhelmingly positive.

#### Conclusions

Based on the experience of the Committee, regular dinners are being created for Stamford Health, a multi-specialty group affiliated with the hospital consisting of over 100 physicians. Planetree retreats have started for specific practices within Stamford Health with physicians participating with nurses and support staff. These melded retreats will continue for all practices within Stamford Health. Additionally, facilitators have been trained to teach compassionate communication, an 8-hour Planetree module that will be rolled out to all physicians, including house officers.

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## Session O3.4: Promoting health through physical activity

#### **Ethical aspects of physical activity**

#### **ARLEBRINK Jan**

#### Introduction

People who engage in physical activity feel most often in good shape, and a lot of research indicates that physical activity is very important for health. Regular physical activity reduces the risk of contracting a number of severe disorders, such as cardiovascular disease, type 2 diabetes, osteoporosis, locomotive problems, certain types of cancer. Research also shows differences in levels of physical activity between different population groups where, for example, social, economic, gender and economic factors play an important role.

#### Purpose/Methods

Using an ethical perspective, a number of reasons will be given why health care staff should emphasize the importance of physical activity, and why they should implement these ideas in the patients with whom they come into contact. The ethical perspective is taken from the work of the Danish philosopher K.E. Løgstrup and his thoughts about people's basic life conditions. The concepts used in this context are interdependence, the ethical demand, compassion, responsibility, empathy and autonomy.

#### Results

The ethical demand urges you to take care of the person in your hands. One way to do this is to inform them of the importance of physical activity. By doing so, we are showing compassion, and we are also taking responsibility for them. Engaging in the patient also involves employing an empathetic and professional approach. Promoting physical activity is also a way to strengthen the patient's autonomy and integrity.

#### Conclusions

When you consider on implementing physical activity among patients you meet, it's not only medical and psychological aspects that are important. By using the ethical perspective by K.E. Løgstrup you may get a tool that may be helpful to yourself when you consider on implementing physical activity. There are many reasons for this and most important is the urge to take care of the person in your hands in order to strengthen his or hers autonomy and integrity.

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#### The Effectiveness of Group Exercise Activity in Mackay Energetic Aerobic Exercise Program

#### LEE Shu-Chen, HWANG Lee-Ching, HUANG Wei-Hsin, LIANG Li-Jen, CHEN Yu-Hua, CHUANG Jui-Yun, CHANG Chia-Mei, CHAN Hsin-Lung, CHANG Betty Chia-Chen

#### Introduction

Group exercise activity can help encourage people to form regular exercise habit. Mackay Memorial Hospital produced a "Mackay Energetic Aerobic Exercise" DVD, which consisted of six exercise routines of different intensity levels and accompanied by fun music. A contest "Mackay Healthy Star Show" was held to promote this exercise DVD to hospital staff members, patients and their families, and community groups, in the hope of encouraging participants to form regular exercise habits.

#### Purpose/Methods

Through the "Mackay Energetic Aerobic Exercise" DVD and the "Mackay Healthy Star Show" contest, we hope participants can improve their exercise habits and be aware of their own health status, as well as achieve weight control. Methods:Physiatrist and exercise coaches helped design the "Mackay Energetic Aerobic Exercise". First step is promoting and demonstrating the aerobic exercise to hospital staff members and community groups. Second step is to hold the "Mackay Healthy Star Show" contest. Participants were asked to fill a pre-survey on health self-awareness, personal exercise habit, and exercise knowledge. In addition, measurements of their height, weight, waist circumference, and grip strength were performed as well. After two months and just before the contest, participants were asked to fill a post-survey and again their anthropometric measurements were taken. This contest not only awarded the group with the best performance, but also had individual awards

for the most weight lost and the most improvement in grip strength.

#### Results

There were a total of 356 participants, and 11 teams (a total of 131 people) participated in the contest. Overall, exercise habits improved in participants; score for exercise maintenance increased by 0.12 and percentage of participants who exercise for one hour each time also increased from 13.6% to 20.5%. Improvements in BMI (average reduction of 0.06), grip strength (average increase of 2.03kg), lifestyle limitation as a result of health status (average score increase of 0.4), health self-awareness (average score increase of 0.15) were noted, with grip strength and health self-awareness reaching statistical significance (p<0.05). As for social relationships, there was also a rise in the support from family, friends, and colleagues, with score increases of 0.13, 0.5, and 0.24, respectively.

#### Conclusions

The aerobic exercise DVD and the "Mackay Healthy Star Show" contest were found to be significantly effective in improving grip strength and health self-awareness. In addition, BMI, lifestyle limitation as a result of health status, maintenance of exercise habit, and social relationships all showed improvement as well. In the future, we wish to continue holding similar activities, and involve community members, the elderly, and patients, in the hope of promoting good health for all.

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Can a brief physical activity prescription intervention improve the counseling practice and personal habits of clinicians? Evaluation of the "Healthy Move" Pilot Program

#### LIN Jessica, GAN Cai Ru, GAN Zuo Hua, LIN Ming Nan, YANG Yi Ching

#### Introduction

Research has shown that promoting regular physical activity and decreasing sedentary behavior is a preventive measure for a healthier lifestyle. Although it is recognized that physical activity is important in a clinical setting, physicians do not always prescribe it enough due to barriers of time, knowledge (training) and lack of standard office instruments. This raised the question on how to overcome barriers and motivate physical activity counseling.

#### Purpose/Methods

The aim was to observe the clinicians' personal exercise and counseling status, to determine the effect of one-hour start-up course brief exercise prescription intervention. It is based on theory of planned behavior and provides physical activity counseling tools for clinicians to use in their offices. Participants completed 63-item questionnaire describing their personal exercise habits and current outpatient exercise counseling status (attitude, frequency and barriers) before and after intervention

(2 months). Satisfaction survey was completed after the start-up course and intervention.

#### Results

Total of 41 participants were recruited (15 Family Medicine physicians, 5 Cardiologist and 21 health educators). A large amount of sedentary behavior is seen in 29.3% of clinicians. Family physicians had a higher exercise habit than health educators in aerobic and strengthening exercises. Health educators counselled more than physicians (aerobic 90.5% VS 80%); stretching (76.2% VS 66.7%); strengthening (66.7% VS 40%). The top 3 barriers to counseling are lack of experience, skills and tools.

#### Conclusions

This is one of the first few studies to pilot a specific program in behavior change and counseling skills for promoting physical activity in Taiwan. The importance of this study is to provide a tool for the clinicians to promote physical activity. Thereby, this study proposes new innovative ideas for the hospital's continuous education and tools that can be applied and tailored to various patients and people in need.

#### Comments

The "Healthy Move" intervention is based on the theory of planned behavior and provides a brief one-hour start up course and physical activity counseling tools for clinicians to use in their offices. Overall, most participants found the material useful and effective, although some identified its challenges in practice. More modifications need to be made to target elderly populations and practical exercise movements.

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#### Using Social Cognitive Theory to Enhance the Community Participating in Fitness Walking

#### CHIEN SHIH YUN, TSENG CHUN HAN, CHANG YU LAN, HSIEH HUNG YU

#### Introduction

Lack of physical activity and sedentary lifestyle is a risk factor for causing physical decline and health hazards, thus using the power of community and environmental groups to bring up a regular exercise behavior. Researching from 51 people in Xīndiàn area, 53% of people who walk as a sport, but the exercise intensity is obviously insufficient. This program is to help people to engaged in a moderate-intensity exercise.

#### Purpose/Methods

In social cognitive theory to plan a strategy: 1. Invite a professional coach to teach people the skills of fitness walking 2. telephone interview, team competition, business groups and group tutoring to enhance self-efficacy. 3. Create a supportive environment: design some community walking trails, and marked calorie consumption. 4. give away walking stick, a pedometer or some other tools as a gift to increase utilization. 5.

Each week as a unit, recording the walking time, and plan some competitions.

#### Results

A total of 127 people participate in this event, there were 51 people finished this activity. (male: 10, female: 41), average age between  $62.52 \pm 8.97$  years. 79% of participants attend this activity; the average of body fat decrease 2.17 percent; Self-efficacy increase 54.9%, a pair of T test (paired-t test) for (prepost), The body fat and self-efficacy, reached to the statistically significant(p <0.05).

#### Conclusions

Using social cognitive theory to promote community walking events, which can effectively enhance members for a regular exercise, at the same time to achieve the weight control. For the community group cohesion, people have an opportunity to share their experiences. create a health community, and connected this purpose to people's daily activities.

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### Online or Manual Fitness Tracker: Which is better?

#### ANG Yen, CHONG Ellena, CH'NG Keat Hui, KRANCARI Molly, CHUN Teik Lan, CHOO Yong Chek

#### Introduction

Self-monitoring is believed to assist in behaviour change. Food or exercise diary has always been used to promote and encourage healthy eating or regular physical activity. With the easy and sometime free access to a variety of online tracking applications, more people today are turning to the digital world to track their exercise or food intake. It is not known if digital tracker is more effective than manual tracker in encouraging people to exercise.

#### Purpose/Methods

The purpose of this study is to compare the effectiveness of paper-pen fitness tracker versus online fitness tracker in promoting exercise among employees of a hospital. Our goal was to encourage employees to exercise ≥3 times a week. In 2014, a manual fitness tracker in the form of giant chart was created and given to every department whose employees wished to participate. The chart would be posted at a visible place in each participating department. A year later, a free online fitness tracker was created and located on the hospital's intranet. Every participating employee would get their own personal account and password. The data entry on both trackers was self-directed. Motivational quotes and reminders were sent to all staff during the campaign period for both cases. Both campaigns ran for 12 weeks, from February to May each year.

#### Results

The manual fitness campaign attracted 30% (332) of the hospital employees, while the online tracker had 21% (234) staff participating. Both trackers increased exercise frequency  $(\ge 3)$ 

times a week) at statistical significant level, but the increase was more pronounced among the manual trackers (from 28.3% to 43.7%, p<0.001) than the online trackers (from 27.4% to 31.6%, p< 0.01). Notably, the increase from baseline in exercise frequency among manual trackers (+15.4%) was 3 folds more than the online trackers (+4.2%).

#### Conclusions

Both trackers—manual and online—are self-help tools designed to encourage certain health behaviour, with one more visible and another more private. The manual fitness tracker where everyone in the department was allowed to view each other's exercise record turned out to be more encouraging and motivating for the desired behaviour. Somehow in this population, the more public event managed to garner more support and a more positive outcome. Privacy does not seem to matter as much as it does in the West.

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## Session O3.5: Opportunities and challenges for tobacco cessation

Exploring the relationship between smoking and challenging behaviours among patients within a large Australian health service

### DEAN Emma, CORBEN Kirstan, MARUM Steve, ANANDA-RAJAH Michelle

#### Introduction

A common barrier in achieving effective smokefree environments within health services in Australia is the perceived association between smoking and challenging behaviour among patients. The minimisation of behaviours of concern (BOC), defined as challenging behaviours related to underlying medical conditions, which may result in a case of clinical aggression, is a high priority for health services in order to maximise clinical outcomes and minimise occupational risks.

#### Purpose/Methods

The aim is to improve understanding of the relationship between smoking and challenging behaviours and identify determinants and potential prevention and management strategies. A random selection of complex, high severity cases were subjected to a root cause analysis. A retrospective audit of all cases of clinical aggression over a one year period sourcing code grey records, security logs and risk management reports (RiskMan®) is underway. The study is inclusive of emergency, psychiatry, specialty and general medical/surgical and critical care wards.

#### Results

Patient profile – 34 year old male; post alleged assault; altered conscious state, traumatic brain injury; international visitor with no local social networks; smoking status unknown Behaviour – more than 18 episodes of clinical aggression during intensive

care stay; likely contributor unidentified nicotine dependency Key learnings – urinary cotinine tests may be used to verify smoking status where unknown Our understanding of the incidence, determinants and management strategies will be strengthened by the indepth retrospective audit.

#### Conclusions

The association between smoking and challenging behaviours among patients within a health service setting is present, complex and multifactorial. Improved management of the behavioural, psychological and dependence components of smoking has the potential to reduce the incidence and severity of clinical aggression, thereby improving patient outcomes, minimising occupational risks, and prompting smoking cessation. The learnings from this audit are highly transferable to other health services within Australia and internationally.

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## What is the role of health professions in tobacco control?

#### GASSER Rudi, GUNNING Miriam, CHALOM David, KOALICK Susann, LOPEZ VEGA Daniel Jesus, LO Shu-Ying, MUNTEANU Iona, ORIORDAN Ann

#### Introduction

Tobacco-related diseases kill one in every two tobacco users. Health professionals and healthcare services have a critical role to play in addressing this unacceptable statistic, however despite an accumulation in knowledge, tobacco control remains poorly implemented within the healthcare services of many countries. ENSH-Global is a global network that provides standards for tobacco management in healthcare services and a strategy to engage, guide and support health professionals in working together to reduce smoking related deaths and ill health. Word count 78

#### Purpose/Methods

OThis presentation will outline ENSH-Global's evidence based and proven approach for facilitating tobacco control in healthcare services. It will include an overview of the comprehensive tobacco control standards, including considerations arising from a recent review of the standards in 2015. It will also outline how ENSH-Global's broader strategy aims to motivate and involve health professionals and healthcare services worldwide to work together to implement tobacco-free policies in line with WHO FCTC guidelines. Word count 72

#### Results

Since it was first established in 1999, ENSH-Global has involved an increasing number of healthcare services in its drive to address the use of tobacco worldwide. Implementation of the ENSH standards is a key facilitator for success, demonstrating that more effective outcomes can be achieved when participation of health professionals in tobacco control are integrated within a structured organisational approach. Ongoing development of the standards aims to address emerging issues

including the use of electronic cigarettes specific population needs. Word count 79

#### **Conclusions**

It is estimated that by 2030 the death toll from tobacco use will exceed 8 million a year, unless comprehensive tobacco control is implemented. Health professionals have a central leadership role to play. The ENSH-Global concept integrates the key aspects of tobacco management within healthcare services in a practical and systematic approach that is in accordance with the FCTC guidelines and supports delivery of safe, quality care in relation to tobacco. Word count 71

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## Mindfulness in stop smoking courses; evaluation of feasibility and acceptability

### DOHERTY Kirsten, FLANNERY Eimear, FITZPATRICK Patricia

#### Introduction

Well-evaluated stop smoking courses (1) have been run for over two decades in St. Vincent's University Hospital, an ENSH Gold Award recipient since 2010. Mindfulness approaches cultivate an attitude of acceptance to current experience and may help individuals to experience cravings without reacting to them by smoking. In the USA mindfulness is being explored as a tool in smoking cessation, and a randomised controlled trial of mindfulness training compared to standard group treatment has shown increased abstinence at follow-up (2).

#### Purpose/Methods

This evaluation was designed to examine the feasibility and acceptability of introducing the concept of mindfulness during the established six-week evening stop-smoking courses. A thirty-minute session involving an overview of mindfulness, a short meditation, and resources for further exploration, was delivered at the mid-point of five stop-smoking courses in 2015. Participants (n=27 [100% response rate]) completed an anonymised questionnaire which assessed attitudes to the session, opinions on the format, interest in further mindfulness and demographic information.

#### Results

Most respondents were over 45 years of age (68%) and female (67%). Ninety-three percent found the session useful. 100% of men and 67% of women (p=0.145) "learnt something new" and session length was acceptable to 78%. The majority (88%) had some interest and 44% had definite interest in a future mindfulness course. Younger people were particularly interested in such a course (88% <45 years versus 24% ≥45; p<0.001), as were women (50% versus 33% of men; p=0.416).

#### Conclusions

This evaluation indicated that participants engaged with this session positively, that a substantial number were interested in further instruction in mindfulness, and that it is feasible to

introduce the concept of mindfulness during a stop smoking course. Areas for further exploration include earlier delivery during the stop smoking course to increase its contribution during the quitting process, consideration of increasing the session length as proportion of the course, and the effect on long-term quit rates.

#### Comments

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## Session O3.6: Elderly health promotion through age-friendly healthcare

Identification and Improvement on Organizational Weaknesses in Agefriendly Health care in Taiwan

#### CHIOU Shu-Ti, HU Yi-Chun

#### Introduction

Older persons are important users of health care. Taiwan developed "the framework of age-friendly health care" and applied it for voluntary recognition to help hospitals and health services identify their weaknesses, develop action plan, and continuously improve their quality of care to promote active aging.

#### Purpose/Methods

Contents of this framework were mainly based on the WHO principles of age-friendly healthcare, the WHO Standards for Health Promotion in Hospitals, and the Elder-Friendly Hospital Initiative in Canada. There are 4 standards (i.e. management policy, communication and services, care processes, physical environment), 11 sub-standards and 60 measurable elements in the framework. After pilot-testing and validation, it was used for recognition of "age-friendly hospitals and health services". The results of earliest applicants were analyzed and compared with those of 2014.

#### Results

After launch of the official recognition program, there were 20 and 41 applicants in 2011 and 2014, respectively. In 2011, we identified weaknesses on 6 elements with average score lower than 80 (while the full score is 100) based on surveyors' assessment, including IT support for implementation and

evaluation of the age-friendly policy, staffing in geriatric care, basic training for all staff, training in core competence for clinical staff, existence of quality assessment program, and existence of guidelines on multidisciplinary comprehensive geriatric assessment and interventions on high-risk seniors. These became the targets of emphasis in training and communication, and further guidance on these elements was developed, too. Assessments done on 2014 applicants showed that all 6 elements had statistically significant higher average scores than those of 2011.

#### Conclusions

This study showed that the recognition of "age-friendly hospitals and health services" helped identify common weaknesses among participating organizations to achieve significant improvements on late participants.

#### Comments

Development of health promoting settings needs complex organizational adaptation in culture, structure, process and decisions. Taiwan's "framework of age-friendly health care" appeared to be acceptable and helpful in supporting organizational changes.

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## A content validity check of the performance indicator of age friendly primary care facilities in Taiwan

### HUNG Hsi-Lung, HSU Yueh-Han, CHEN Wei

#### Introduction

The Health Promotion Administration (HPA) has introduced the Age-friendly Hospitals and Health Services Recognition in Taiwan in 2011. By February 2015, a total of 104 HC organizations have passed the recognition. We use questionnaires to survey those healthcare organizations whose opinions about the performances indicators. Through the research we get some important conclusion. Many Performance indicators of CVI is low, HPA must redesign. And some HC organizations are relatively satisfied (Mean  $\pm$  SD : 84.1  $\pm$  6.8) with the Policy.

#### Purpose/Methods

The purpose of this research is to examine the Content Validity Index of 21 performance indicators among 104 healthcare organizations which have passed the recognition. The results of this study offer recommendations and suggestions to HPA .The questionnaires of data were analysed according to different levels and classifications of the healthcare organizations. Moreover, the questionnaire was also administered to the onsite surveyors hired by HPA to examines the differences between performance indicators CVI of two subject groups.

#### Results

Healthcare organizations which passed the recognition are relatively satisfied (Mean  $\pm$  SD : 86.5  $\pm$  6.0) with HPA's promotion towards the active ageing policy on a national level. The CVI of 21 performance indicators under the four standards was poor and needed to be re-examined. Of the two subject groups, only 4 performance indicator scores were greater than 0.78.There was urge to redesign the performance indicator.

#### **Conclusions**

HPA is suggested to redesign the performance indicator under the four standards by providing clear definitions and range, also to incorporate it into regular data collection so that each performance indicator can evaluate policy efficacy more realistically and more accurately. The Age-friendly Hospitals and Health Services Recognition is suggested to be incorporated into the accreditations of different healthcare organization levels, so that continual promotion of age-friendly policy can be achieved.

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## Age-friendly Comprehensive Geriatric Care Campus

#### LIAO Miao-Yu, TSENG Ching-Jung, HUNG Yu-Chen, LEE Meng-Chih

#### Introduction

Taiwan became an aged society since 1993, and the number of the elders is about 12 %in 2015. There are more than 1/3 patients above 65 years old in our hospital and the number is increasing. Our hospital try to set a Aging friendly Comprehensive Geriatric Care Campus to provide a patient centered care service.

#### Purpose/Methods

Methods 1. Integrated the principles of universal design into the layout of our hospital. The environment are specifically designed to assist the handicapped elderly in a variety of ways. 2. Set a multi- disciplinary team for the elders We have doctors, nurses, case managers, social workers, dieticians, pharmacists, physical therapists, occupational therapists . 3. Barrier free service Our hospital reset the health education center for the elders to provide health information and disease prevention 24 hours a day.

#### Results

We provide a barrier free environment for the elders. We developed a comprehensive geriatric care campus from community, acute care, intermediate care, long term care to palliative care. Our integrated geriatric clinic, customer center and education and health management center provide one stop service for elders. Our dedicated efforts resulted in our receipt of the award of Distinguished Health Promotion Hospital and Friendly Environment in the year of 2013.

#### **Conclusions**

Barrier free environment and team work is important for the elders. We will try our best to continually maintain our software and hardware.

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# Session O3.7: Workshops of the HPH Taskforce on Health Promotion for Children and Adolescents in & by Hospitals

Designing Children's Rights to Health: from principles to practices

#### SIMONELLI Ilaria, TARBAL ROQUER Arian

Abstract introduction The Task Force HPH-CA is currently working on Children's Health Promotion and Children's Rights taking into account the current Indicators and policies in the Children's Rights field; Health literacy and Health Promotion initiatives also in Schools to promote correct lifestyles; the development of IT solutions for promoting children's health and rights knowledge. The workshop is addressed to professionals of the health sector, managers of health care public and private organizations, teachers of schools, people caring for children, Associations and NGO's committed in children's development topics. Purpose / Methods The goal of the Workshop is to present and discuss experiences from Task Force members and from International experts on children's rights in health care settings and health promotion with regard to the development of children's rights indicators and their implementation; Information Technologies applied to health and rights promotion; Health promotion in schools with regard to the development of standards and indicators; the worldwide experiences on children's rights and health protection and promotion. Results The expected results focus on a better knowledge and understanding of the Workshop contents; a participated discussion on the issues raised, and the creation of further collaborations with the Task Force in order to proceed on these working areas. If possible, proposals on the construction of a theoretical and operational framework for people working in this field will be disseminated through the HPH network. Conclusions Emerging tracks from discussion and innovative perspectives proposed by the participants useful for defining a theoretical and operational framework for people working in this field are welcome and will be discussed inside the Task Force and with the International Network. The Workshop report will be available on the Task Force Website in order to promote the conclusions reached and the future perspectives at international level.

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# Session O3.8: Human Centered Design as an Approach to Reducing Potential for Post-Hospital Syndrome

### JONAS Wayne, KRUMHOLZ Harlan, PLATT Lisa, SAKALLARIS Bonnie

#### Introduction

Research suggests, rather than returning us to health, the event of an inpatient stay may weaken individuals to such a degree that it escalates the potential for co-morbidities to occur even post-discharge (Krumholz, 2013). A human-centered approach to designing systems within environments of care that improve not only physical surroundings but also influence models of human behavior may contribute to measurable advances in patient satisfaction and clinical quality (Sakallaris, MacAllister, Smith et. al, 2016; Carter, Frampton, Platt et.al. 2013).

#### Purpose/Methods

Interruption of sleep cycle, increased wakefulness, and lack of situational control are cited as contributing factors to patients developing adverse health outcomes unrelated to the diagnosis causing them to be admitted (Krumholz, 2013). Incidences of early readmission, Hospital Acquired Conditions, and diminished quality outcomes for patients, could have serious implications for hospital reimbursement. Salutogenic design, may contribute positively to system and individual resilience, producing a state of wellbeing that may decrease potentials for Post-Hospital Syndrome (Sakallaris, Firth, Gourdin, Jonas, 2013).

#### Results

Evaluation of the potential effects that Human-Centered, or Salutogenic, design for healthcare environments may have on moderating risk factors of Post-Hospital Syndrome in individuals with recent inpatient experiences could be a worthwhile effort in understanding how to reduce its occurrence. Existing and ongoing research on human response to the built environment substantiates that the design of the environment of care, in addition to impacting real and perceived quality outcomes, can significantly influence patient experience impacting compensation Stone, 2008).

#### Conclusions

This 90-minute workshop will include a panel presentation by Wayne B. Jonas, CEO and Bonnie Sakallaris, Vice President for Optimal Healing Environments at Samueli Institute; Harlan Krumholz, MD Center for Outcomes Research and Evaluation at Yale School of Medicine; and Lisa Platt, Director of Performance Improvement and Design at Planetree followed by an introduction to tools for evaluating human-centered environments of care. The session will conclude with a dialogue and Q&A between participants and panel members.

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# Session O3.10: CHPS Symposium for Junior Researchers: Basic Systematic Review Technique - A hands on session on how to review the scientific literature

#### **TØNNESEN Hanne**

Going through the scientific literature is a basic task in almost any research project', and a proper process and results description is important for any scientific paper - e.g. as a part of introduction, discussion or as an individual (review)paper. However, searching the literature systematically and in the right way may sometimes be challenging - not least for students and junior researchers. Drawing on WHOCC's full curriculum for their 3 days systematic review courses for PhD students, this CHPS session will give the participants a condensed crash course on planning and construction of systematic literature searches. The participants will be introduced to basic search strategies, practical searching, critical reading of papers and general handling of results.

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## Session O4.1: Innovative health promoting direct service provision

Lifestyle Change Outcomes in a Group Medical Fitness Program for Value-Based Care

#### **EDSHTEYN Ingrid, LISK Eunice**

#### Introduction

While evidence and guidelines support the effectiveness of lifestyle behavioral interventions for chronic disease prevention and treatment (ACPM 2009), chronic diseases still account for 75% of health care costs (Go et al. 2014) and 40% of all premature deaths are due to behaviors amenable to lifestyle change (Milani & Lavie 2015). A multidisciplinary clinical model that strengthens collaboration between health providers is needed to improve outcomes (Parekh et al. 2011).

#### Purpose/Methods

Griffin Hospital's Wellness for Life program is one such model evaluated for improving health risks and population health promotion. Biometric and qualitative data was analyzed on adults (ages 30 – 80) who completed a 12-week group lifestyle change program (n=8) located at a community hospital's fitness center. Patients were referred by their primary care providers and met the inclusion criteria of ability to exercise. Measurements of weight (primary outcome) were taken at the beginning and at the end of the program.

#### Results

A total of 3 cohorts had completed the program at the time of evaluation. Average weight loss percentage across cohorts was: Cohort 1 (n = 8) = 2.6% Cohort 2 (n = 14) = 4% Cohort 3 (n = 14) = 5.7% (43% had >6% weight loss at 12 weeks) From the first cohort evaluation, the average subjective rating for whether patient's met their intended health outcomes was 93.3% The average rating for whether the program met patients' expectations was 95.5%

#### Conclusions

This medical fitness approach to Clinical Lifestyle Medicine was promising in reducing weight for this small sample of an at-risk patient population. A long-term and larger randomized controlled trial is warranted to test the effectiveness of weight loss and health risk factor reduction using this model. Interdisciplinary group lifestyle change approaches that involve clinical providers, nutritionists, exercise physiologists, and health coaches may hold promise as an effective model for value-based care.

#### **Contact: EDSHTEYN Ingrid**

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Integrative Health and Wellness (IHW) Program: Development and

## Implementation of a Holistic, Integrative Health Clinic for Veterans

### HULL Amanda, ADAMS Alyssa, EICKHOFF Christine

#### Introduction

The Integrative Healthcare and Wellness (IHW) Program at the Washington DC VA Medical Center (DCVAMC) provides complementary and integrative health (CIH) services to veterans in a patient-centered and patient-driven outpatient clinic setting. IHW services include acupuncture, variety of mindfulness and meditation services, yoga, tai chi, qigong, massage, integrative nutrition, reiki, integrative whole health group, and integrative medicine services. This program is offered through the Patient Centered Care (PCC) Service and is available via consult to any interested veteran.

#### Purpose/Methods

The policy, development, and implementation strategies used to create the infrastructure for this innovative, holistic program will be reviewed. Trends observed in the program over its first three year, determined through exploratory QI analyses with data harvested from Electronic Medical Record (EMR) Data and the VHA Corporate Data Warehouse (CDW), will also be explored.

#### Results

The IHW Program has received a growing number of referrals since its inception (2013–578, 2014–632; 2015–1741). In 2015, 75% of IHW Program referrals came from primary care outpatient clinics (41%, n=719), Neurology (12%, n=205), Psychology (13%, n=219), and Community Based Outpatient Clinics (10%, n=168). In 2015, providers from 69 different clinics referred Veterans to the IHW Program. Regardless of referral source, pain or mental health symptoms were the primary health concern of Veterans participating in the program.

#### Conclusions

The IHW Program is one of the first programs of its kind within the VA healthcare system and has become a model for patient-centered, integrative health implementation across the VA. Findings suggest the demand for CIH services within the VA is growing rapidly and that Veterans are seeking healthcare options that focus on patient empowerment and holistic approaches. Results also indicate that there is a strong integration between primary, specialty care, and the IHW Program.

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Identification of modifiable risk factors among patients of a large Australian health service.

DEAN Emma, LIVINGSTONE Cameron, CORBEN Kirstan



#### Introduction

Chronic diseases lead to reduced quality of life, significant morbidity and mortality globally. There are many underlying risk factors for chronic diseases, many of them modifiable, including smoking, poor nutrition, obesity and untreated hypertension and hyperlipidaemia. The strengthening of the prevention system within Australian health services aims to more systematically identify and respond to modifiable risk factors.

#### Purpose/Methods

The aim was to investigate the current rate of identification of modifiable risk factors among admitted patients. A retrospective medical record audit, informed by a literature review, included more than 150 patients admitted on a single day in July 2014 for the rate of identification of a range of modifiable risk factors. These factors included hypertension, smoking status, physical activity, living arrangements, alcohol and other substance misuse and weight and body mass index (BMI).

#### Results

The rate of identification of risk factors varied hypertension (91% of medical records); living arrangements and marital status as an indicator for social isolation (70%); smoking status (66%); weight and/or BMI (39%); physical activity levels (35%); alcohol use (28%); illicit substance use (19%); and prescription drug abuse (4%). The rate of identification of smoking status has risen from 14% three years earlier as a result of a clear organisational improvement priority.

#### **Conclusions**

This review of current practice demonstrates that the identification of modifiable risk factors among patients in a large Australian health service is not undertaken systematically. The results identify opportunities to engage health services and health professionals in strengthening preventative health practices through the systematic assessment of and response to modifiable risk factors. Alfred Health is actively developing its response to overweight and obesity as a result of this audit.

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## Session O4.2: Health promotion strategies for refugees, migrants and minorities

Improving life expectancy:
Understanding the health needs of
Taiwan Indigenous Peoples

### CHIEN Sou-Hsin, CHEN Ching-Yuan, CHANG Pin-I, WU Hung-I, LAI Yi-Ling

#### Introduction

Recent studies indicate that life expectancy for aborigines (2.3% of total population) are on average 10 years less than non-aborigines in Taiwan, with 16.9% in the senior population

(defined as age 55 years and above). Inadequate health care, health promotion, and disease prevention services leads to poor health status. Since 2005, the Council of Indigenous Peoples (CIP) implemented the "Tribal Day-Care Center" Project to provide services to elderly aborigines in need.

#### Purpose/Methods

This study aims to reveal unmet health needs and to improve health promotion services among tribal communities. In cooperation with the indigenous people's government organizations, we worked closely with opinion leaders in different tribes. Physical fitness testing and health needs survey were conducted during regular community gatherings. Interviews with stake holders were completed to learn about available resources and to understand local health issues and its priorities.

#### Results

Two consensus meetings were held by representatives from Tzu Chi Foundation, CIP of Nantou County and Taichung Tzu Chi Hospital. A total of 208 aboriginal elders(male: 22%, female: 78%) from 12 day-care centers were recruited. Their ethnicities include Atayal, Bunun and Seediq, with an average age of 71 years. We found high prevalence, with 47% of all assessed elderly having high blood pressure, overweight and obesity (67%). Thus, needs for knee care and knowledge on chronic disease medication were unmet.

#### Conclusions

As indigenous people are rapidly acquiring lifestyle diseases as they move from a traditional to transitional and modern lifestyle. Results suggest that although the Integrated Delivery System (IDS) increased the accessibility of health services, improvements in infrastructure and integration of preventive and primary health care programs are still essential. Indigenous people shall be encouraged, trained, and empowered to increase participation in promoting health for the community and the individuals themselves, while improving management of existing morbidities.

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#### An Exploratory Study to enhance Taiwan Urban Indigenous' Health Self-Management - the case of Xizhou Amis Tribe

#### WENG Chung-Feng, CHEN Hsia-Chi

#### Introduction

In Taiwan we found out that there is no difference in the incidence of the disease among the non-indigenous and the indigenous who migrated to the city. The reason is most likely related to their lifestyle. Study showed high incidence of high blood pressure, poor compliance of their medication and medical treatment among the urban tribes in New Taipei City. Their unhealthy behaviors, like non-self-monitoring of blood pressure and not taking their medicine regularly caused poor control of their blood pressure and lead to deterioration of their

illness. In order to improve Urban indigenous' health self-management, we should start educate them on health behavior.

#### Purpose/Methods

This study, used social-cognitive theory, enhanced the effectiveness of urban indigenous health self- management, and using role models from the tribes and organizational operations, to make a supportive environment. We proposed some strategies as follows: 1.Check Xizhou tribe's blood pressure, blood sugar, cholesterol and collect the abnormal findings of the inhabitants. 2.Arrange healthy life-style programs, and develop health self-management ability. 3.Sentinel blood pressure measurement services to raise utilization. 4.Use behavioral techniques: to give reward to those who monitor their blood pressure.

#### Results

The health promotion nurse do the tribal routine, scheduling evening health visits and health education activities in specificity time, 94 cases has chronic diseases, we encourage the resident to enhance their medical use, 57 cases were referred for medical treatment, a total of 239 people received medical treatment, to increase the number of self-monitoring, 1121 people received health services, including physiological measurement, health counseling, and health education.

#### **Conclusions**

We created a friendly medical assistance pipeline, combining the resources of social welfare, in order to take care of the relatively weak tribal people, provide access to health promotion and medical treatment, thus enhancing their ability to health self-management especially on healthy living.

#### Comments

Those indigenous people who migrated to the city are isolated from their original history culture, society and politics from their original homeland. These issues and their health care need to be highlighted and assisted by professionals to reach sustainable development as the final goals, we do support health promotion from vertical integration of urban indigenous issues and medical resources.

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# Session O4.3: Lifestyle interventions and prevention programs for patients and community citizens

Building Capacity for Successful Community and Primary Care Falls Prevention Partnerships

#### **KING Monique**

#### Introduction

Trained community, home care and physical activity providers are successfully delivering an Australian government accredited, best-practice group falls prevention program ("The Stay Standing Program") to community dwelling older adults. Pilot evaluation demonstrates significant improvement in fall risk indicators in independently ambulant older people. Program Facilitator training is a resource- and cost- effective, population level Primary Care partnership approach, empowering older people to manage their falls risk for independence. Further investigation of Primary Care and Community falls prevention partnerships is warranted.

#### Purpose/Methods

Community care workers learned to facilitate the 8 session Stay Standing Program for groups of older adults. "Train the Trainer" instruction included self-paced online modules, live workshop and supply of all program resources on USB. Stay Standing Program content includes population level multidisciplinary falls risk education, SMART goal development and home-based functional strength and balance exercise instruction / supervision. During program sessions 1 and 8, the trained program Facilitators measure group participants' functional falls risk indicators using validated outcome measures.

#### Results

Student's t test of 53 datasets demonstrated significant improvements across the 30 second Chair Stand and Short Form Falls Efficacy Scale (International) but not the Timed Up and Go and Near Tandem Stand tests. Using a linear regression model with adjustment for mobility (excluding the results of 5 people dependent upon walking aids for indoor mobility) resulted in significant improvements across all functional falls risk indicators (eg. Near Tandem Stand test for functional balance: p=0.002).

#### Conclusions

\*Independently ambulant, community care supported older people significantly improved their functional falls risk indicators after participating in the Stay Standing Program; \*Community-based care workers can be successfully trained and supported to lead effective falls prevention programs in partnership with Primary health care; \*The pre-packaged Stay Standing Program and Facilitator training model is an innovative, sustainable, multi-strategy, direct-service approach to a population level community care and Primary health care falls prevention partnership.

#### Comments

Further conclusion in support of training specificity and transference for daily function: independently mobile older people showed greater improvement in balance indicators than those reliant on a walking aid. Standing Program Facilitator training is available at http://www.staystanding.com.au. The program was designed by a Physiotherapist with population level health promotion and capacity building project experience. It is Australia's first national quality accredited falls prevention program. Program training is endorsed by peak bodies including the Australian Community Worker Association and Physical Activity Australia.

Contact: KING Monique Stay Standing Pty Ltd Post Office Box, 2088 Spit Junction, AUS Patients' experience of changes in perceived control in chronic illness: A pilot-study of the outcomes of a new health promotion program in community health care.

### HEGGDAL Kristin, HJELDSBAKKEN ENGEVOLD Miriam

#### Introduction

Among the main challenges accompanying chronic somatic illness, are uncertainty and lack of perceived control, putting the patient at risk of developing psychological co-morbidities. Emotional distress in chronic illness has been confirmed in research on stroke survivors, patients with fibromyalgia, chronic pain, cancer and a range of other patient groups. There is a need for research on the outcomes of interventions that attends to the emotional aspects of living with chronic illness and interventions that aims at strengthen "health within illness." There is also a need for more interventions suitable for community health care.

#### Purpose/Methods

This paper reports on the results of a qualitative study exploring patients' experiences of changes in perceived control in chronic illness while engaging in an innovative health promotion program in their community. The study was part of a larger study in which the program was tested in both specialist and community health care in the Eastern part of Norway. Health care personnel recruited 18 men and women who were diagnosed with a variety of chronic illnesses and who needed follow-up in their community, as participants in the study reported in this paper. Occupational therapists, a physiotherapist and nurses who had accomplished 80 hours of training functioned as group leaders in the new program. The new approach implied that the participants' resources of coping and bodily knowledge in chronic illness was acknowledged and utilized systematically in the promotion of their health during 7 groups sessions. Qualitative interviews was applied to collect data after program completion and analyzed according to Interpretative Phenomenological Analysis.

#### Results

Three themes were identified as the outcome: Changes in self-awareness, accepting ones capacity and regaining control. This involved a strengthened capacity to handle illness-related strain and individual strategies to prevent psychological deterioration. The findings were confirmed by the results of the larger study that demonstrated that patients' Sense of Coherence was enhanced, especially when the new program was accomplished in a community care setting.

#### Conclusions

The Bodyknowledging Programme was confirmed as relevant and helpful to prevent psychological problems and to strengthen individual health in chronic illness. This study demonstrate that patients' have many capabilities for health that can be affirmed and strengthened in the encounters with health care in a community care setting. However, there is a need for new models of health promotion in the context of chronic illness that allows for focusing on ability and resources for health in spite of living with a condition.

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#### Weight Loss and Health-Promoting lifestyle

### CHANG Yu-Lan, TSENG Chun-Han, HSIEH Hung-Yu

#### Introduction

One health check held by Cadinal Tien Hospital in 2015, 376 people were measured BMI, and around 44.15% of them were over-weight. Main causes of over-weight are including intake of calories being greater than its consumption; inappropriate diet, and lack of exercises. To reduce risk of getting chronic disease such as cardiovascular disease, high blood pressure, and Type II diabetes, we should train ourselves to live in a healthy life.

#### Purpose/Methods

We held an 8-week Healthy Weight-loss Class, and invited people aged from 16 to 64 years old with needs of weight controlling to participate. There are 7 males and 43 females in this group. Healthy strategies are including (1) Regular body measurement: measure blood pressure, glucose, total-cholesterol before and after exercises. BMI, waistline and body fat percentage are measured before each class. (2) Group course: give healthy diet lecture and group exercising time one hour for each. (3) Personal Patient Instructions: recording and improving diet habit, individual consultant via phone call. (4) Gaming: Design gradually level of games/missions based on goal of habit of healthy diet and regular exercise to help participants keep self-monitoring during personal time. (5) Group Competition: a loyalty card is given to participants and points are collected when they attend courses and achieve assigned missions. Group with most points has extra rewards.

#### Results

Total weight-loss is 119.8kgs. Average weights lower from 74.2±14.9 to 71.8±14.6. Average BMI decrease from 28.6±4.3 to 27.7±4.2. 16 participants' body fat percentage becomes lower, and 4 participants' blood pressure down to normal (≦130/80mmHg); 3 participants PC-Sugar come to normal (≦100mg/dl); 10 participants re-gaining the normal value of total-cholesterol.

#### Conclusions

Body measuring helped participants realize their own physical status; we provided professional course and individual patient instructions to promote partcipant's awareness of healthy living lifestyle, and tried to improve their current lifestyle by holding different games. Using healthy diet and regular exercises as main idea with multi-variant solutions to achieve healthy weight-loss and decrease risk of chronic disease.

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#### **Changing Body Image the WAW Way**

#### ANG Yen, KRANCARI Molly, CH'NG Keat Hui, LOH Hwa Ling, CHOO Yong Chek

#### Introduction

One of the adverse health consequences of obesity is low self image. Research suggests body image increases as weight decreases among the obese individuals. Although Malaysia has one of the highest incidences of obesity in South East Asia, very little data is written about obesity-related health issues in this population, much less on the psychological well-being of the obese. Furthermore, there is no published study addressing the effect of weight loss on self image among the obese.

#### Purpose/Methods

The purpose of the study is to determine if weight reduction would bring positive changes to self-image of the obese/overweight person. 41 obese /overweight individuals (mean BMI 28.63±3.93, mean age 34±7.17) participated in a 10-week weight loss program—Weight-Away (WAW), a lifestyle intervention program designed with strong emphasis on behaviour modification as well as psychological wellbeing such as body image. Besides baseline and post-intervention measurement of body weight, blood lipids, fasting blood glucose, we also evaluated body image using the Body Shape Questionnaire (BSQ)—a validated self-report survey commonly used with obese population in a weight loss program.

#### Results

All 41 participants lost weight, from 0.8kg (1.3%) to 13.6kg (15.7%). Mean weight loss in 10 weeks was 5.76kg or 7% of initial weight (p<0.001). About 63% of them lost 5% or more of their baseline weight. Body image improved significantly (p<0.000): from mean score 63.05 (  $\pm$ 15.16) to 45.39 (  $\pm$ 15.41). At baseline, no one was found in the category of "no concern with body shape"; at post-intervention, 16 individuals (39%) were found in this category. Conversely, 16 people (39%) reported they had "marked concern with body shape" at baseline but only 4(10%) remained in this category at the end of intervention.

#### Conclusions

The program WAW resulted in significant weight loss and improvement in body image among the participants. However, the change of weight was not found to be significantly correlated with the change of body image per se as noted in some research. Rather than a function of weight loss, our study suggests in this population perhaps improvement of body image is more of a function of completing a holistic weight loss program such as WAW.

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## Session O4.4: Nutrition counseling and diabetes prevention

## Behavioural insights: how the food environment influences our choices

#### CORBEN Kirstan

#### Introduction

Alfred Health is a leading health service based in Melbourne, Australia, committed not only to the provision of world class treatment services but also the creation of a strong prevention system. Building upon its existing culture of healthy eating, Alfred Health has applied behavioural insights principles to investigate the influence of the environment on consumer choices. Point of sale communication, removal from display and the implementation of price differentials have featured among the trialled strategies focussing on drinks.

#### Purpose/Methods

Objective: To investigate the influence of a range of environmental changes on consumer drinks choices in retail and vending situations Trial one – innovative point of sale communication tools including 'nudge' statements in a retail environment Trial two – removal of least healthy drinks from display within a retail environment Trial three – 20% price differential between the least healthy drinks and other drinks Sales data, consumer surveys and stakeholder interviews were obtained during baseline and intervention periods.

#### Results

All trials demonstrated financial viability and positive shifts towards more healthy drinks choices and strong consumer acceptance. Removal of red drinks from display reduced the proportion of least healthy drinks sold by 12%; total drinks sales were maintained. Placing red drinks behind the counter in self-serve drinks environments produced an even stronger shift in consumer behaviour. Creating a 20% price differential saw a strong decline in the purchase of full sugar soft drinks replaced by increased purchasing of water.

#### Conclusions

Alfred Health led some world first trials demonstrating his feasibility and high effectiveness of environmental changes to achieve healthier drinks choices by consumers. Point of sale communication, removal from display and price differentials all have the potential to contribute to improved public nutrition. In partnership with retailers and suppliers, Alfred Health has achieved a reduction in the number of sugar sweetened beverages in the order of tens of thousands annually. Sharing these results encourages implementation at scale.

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Japanese dietary habits: a key to healthy ageing

**WONG Toh Yoon, MURATA Hirohiko** 

#### Introduction

The Global AgeWatch Index and OECD Health Statistics 2015 shows that Japanese people have the highest life expectancy at birth. The average 60-year-old can expect to live another 26 years in relatively good health. The World Report on Ageing and Health 2015 identified two key behaviors that influence healthy ageing, physical activity and nutrition. Washoku (Japanese diet) was recognized as an UNESCO cultural treasure in 2013 and may be one of the contributing factors to a healthier and longer life.

#### Purpose/Methods

The Japanese diet typically features rice, side vegetable dishes, miso soup (with seaweed) and a main fish (or meat) dish, which offer balanced nutrition. Japanese green tea is also drunk during or after a meal. This presentation aims to summarize the key benefits of Japanese dietary habits and promote its application to achieve healthier lifestyles.

#### Results

The Japanese diet has been shown to have beneficial effects in terms of lowering cardiovascular disease mortality and improving metabolic syndrome. Green tea and coffee consumption may also reduce the risk of stroke. Analyzing data from the OECD Health Statistics 2015, we confirmed that the increase in obesity rate negatively correlated with the life expectancy of women. Unsurprisingly, Japan has one of the lowest obesity rates in the world with only 3.7% of the population having a BMI more than 30.

#### **Conclusions**

Although the Japanese diet has been linked to higher sodium consumption and hypertension, this may be compensated by unique components such as soybeans, seaweeds and green tea. The clearer understanding and practical emulation of Japanese dietary habits may be instrumental to avoid obesity and achieve healthy ageing.

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The Effectiveness of Weight
Management using Lifestyle
Modification Education Model: An
Experience of 4,000 Participants

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#### Introduction

Weight management has become a major issue worldwide. WHO listed obesity as a chronic disease. Mackay Memorial Hospital executed a weight management program, advocating the importance of smart eating and regular exercise, thus forming a lifestyle-changing health education strategy. Participants include hospital staff members and their family, patients, and

community people. Consumption of fruits and vegetables and exercise habits of the participants were tracked over phone interviews and recorded in case files by trained case managers, hoping participants eventually achieve autonomous weight control.

#### Purpose/Methods

The purpose of this project is to enhance one's awareness of weight control and achieve body weight reduction or maintain healthy body weight through education on healthy eating and regular exercise and lifestyle modification. Methods:Education on diet and exercise were provided during fairs, seminars, and booths that were set up in the hospital. Body height, weight, and waist circumference were measured at the initial event. Phone interviews were carried out afterwards to track changes in the anthropometric measurements, understand one's consumption of vegetables and fruits and exercise habit, and also provide related counseling.

#### Results

Over the period of 2012-2015, there were a total of 4,176 participants, achieving a total loss of 15,169kg, with average reduction of 3.6kg per person. Age had a significant influence on weight change (p<0.05); the 21-to-40-year-old age group had the most weight loss. 60.3% of participants had at least 3 servings of vegetables per day, and had significantly more weight loss than those not having adequate vegetable consumption (p<0.05). 45.5% of participants had at least 2 servings of fruits per day, although not reaching statistical significance. Those who exercise regularly had significantly more weight loss than those who do not (p<0.05).

#### **Conclusions**

Through professional counseling on healthy diet and regular exercise and the concept of lifestyle-changing health education strategy, vegetable consumption and exercise behavior significantly improved in the participants, and had an effect on weight loss. Fruits consumption also increased but did not reach statistical significance. Participants were assisted in developing lifestyle changes in diet and exercise, thereby achieving weight control. In the future, we wish to involve more schools, workplaces, and communities, and allow more of the public to achieve the ability for autonomous weight management.

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## Nutrient intake among the patients with type 2 diabetes in Estonia

#### PÕLLUSTE Kaja, KÄRBERG Kati, TOLK Anni, LEMBER Margus

#### Introduction

Balanced nutrition has a remarkable role in achievement and maintenance of the compensation of type 2 diabetes (T2D) and avoiding and postponing complications. For example, hypertriglyceridemia and hypercholesterolemia increase the risk for atherosclerosis and cardiovascular complications, while the vitamin D deficiency is associated with the range of diseases including the glucose metabolism disorders.

#### Purpose/Methods

This study aims to explain the associations between the dietary intake and selected biochemical markers among patients with T2D. 24-hours dietary recalls were collected from all patients and reported nutrient intake data were analysed with NutriData software. Blood samples were taken for the measurement of HbA1c, HDL- and LDL-cholesterol, triglycerides, and vitamin D. 143 patients aged 34-70 (mean value 59.4) with duration of T2D 7.2 years from seven GPs' list were involved, of them 38% male patients.

#### **Results**

The average daily energy intake was 1381 kcal, of which 46.3% formed carbohydrates, 17.9% proteins, and 35.5% fats (incl 14.4% saturated, 12.8% monounsaturated, and 5.8% polyunsaturated fats). The average fibre intake was 18.1 g. Higher proportion of saturated fat was significantly (p<0.05) associated with higher concentration of HbA1c (Pearson r=0.29) and tryglycerides (r=0.20); higher proportion of mono- and polyunsaturated fats correlated to the higher concentration of vitamin D (r=0.32), and low fibre intake had reverse association with LDL-cholesterol (r= -0.36).

#### Conclusions

The results of this study demonstrated that the study participants' daily nutrient intake was not in line with the accepted dietary recommendations for the patients with T2D. The most essential health risks are related to the high proportion of saturated fats and very low fibre intake. A detailed analysis of patients' everyday diet going together with routine blood tests may help them better to understand and follow the balanced and healthy diet and thereby to reduce the essential health risks.

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## Empowerment of staff and patients with diabetes in a Medicine Department

### ZORATTI Raffaele, CHIANDETTI Roberta, BATTELLO Claudia, ROSSI Paolo

#### Introduction

Therapeutic education is a fundamental tool for the care of diabetic patient. Information, awareness, learning of knowledge and skills are provided to the patient and his care givers, for proper self-management of care and disease acceptance, with the purpose to avoid waste in self-monitoring tools and unnecessary admission to the ER for conditions that can be easily managed by the patient or the care givers.

#### Purpose/Methods

How the information is delivered by professionals in different care settings? The Department of Medicine at the Udine School of Medicine (Italy) conducted an exploratory survey on a sample of nurses, about their role, competence and skills in delivering information, education and training to the hospitalized patients

with diabetes, and their capability to transfer this education to the patients or their care givers at hospital discharge.

#### Results

A project was run to ameliorate the empowerment of patients with diabetes. 100 dedicated nurses have been trained to deliver proper information and education on using blood glucose self-monitoring devices and medications to patient and care givers, both during hospitalization and at discharge, with the purpose to reduce the risk of hypoglycemia and hospital readmission. 82% of the patient with diabetes have been recruited in the study and completed the therapeutic educational project.

#### Conclusions

The educational items need to be supported by scientific basis and the educational methods need to be appropriated and tailored to the individual patient and shared between pairs. There is a need of specific methodology and a uniform intervention recording, in order to give to the person with diabetes and care givers a safety discharge instructions.

#### Comments

The use of clinical practice tools and information brochures in the Internal Medicine Day Ward , has increased the nurses awareness on the importance of glycemic control during hospitalization as well as patient safety and empowerment at discharge. Standardization the good clinical patient 's approach and care, and trace the different multi-professional activities on clinical documentation improves the quality of care and enables the patients to take care of themselves.

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## Session O4.5: Health promotion for older people in the community and hospices

Out-Patient Clinic Electronic Reporting and Calling System improves Elderly Out-Patient visits experience

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#### Introduction

According to hospital outpatient satisfaction surveys, the primary complaint of patients is about the length of the waiting time to see the doctor. When it comes to elderly patients, measures that enable them to see a doctor more rapidly will reduce their physical discomfort.

#### Purpose/Methods

Our hospital implemented an Automatic Registration System with Electronic Calling and Report System for the out-patient clinics in March 2014. When the outpatient arrive the clinic, they need to insert the Health Insurance Card into the smart card reader. The system uses the data in the patients' Health Insurance Card chip to determine the age of the patient and give priority access to those aged 80 or more.

#### Results

As of November 2014, the newly implemented Electronic Calling and Report System was used by 91.83% of patients and 94.52% of elderly patients; these figures compare favorably with those of other similar hospitals. An analysis of the data of 8,000 patients who visited Internal Medicine clinics shows that the elderly average waiting time after the implementation of the system was 20 minutes compared to 38 minutes before. Further analysis showed the longest waiting time was 31 minutes at neurology clinic.

#### Conclusions

The Automatic Reporting and Calling System successfully reduced the waiting time for elderly patients. It also reduced the frequency of "knocking on the clinic's door", resulting in more privacy and improve experience seeing a doctor. Through the continuous improvement of its processes, the hospital aims to establish a safe and friendly environment for medical care, hence becoming a truly "age-friendly health care" hospital.

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#### The Innovative Transformation of Elderly Care in a City with Highest Ageing Index of Taiwanese Province

#### **PAI Hui-Wen**

#### Introduction

Team care for elderly is the most important component, which existed not only in hospitals, but also among communities. Value co-creation perspectives would be the core of team care in terms of achieving everlasting ecosystem. This paper demonstrates, through the endeavor of one geriatrician, the process of formulating the innovative model of elderly team care in one county city.

#### Purpose/Methods

In order to gain the profile of team care, we detailed the routine and transformation of team care after describing the background and obstacles of delivering elderly care. For investigating the outcome of team care, we arranged the interviews with team members and patients with related family members. The prepared questions would be answered with the open-ended conversation, which were audiotaped after granting informed consent.

#### Results

This transformation of team care showed the transdisciplinary team care for elderly is necessary. However, without

information communication technology (ICT), the team would not incorporate with others efficiently and gain great satisfaction of patients; without value co-creation, it would not sustain longer. Hence, the hybrid of health and social care was experienced and noteworthy through the unifying process of all possible resources.

#### Conclusions

The innovative model have changed the landscape of traditional elderly care into the community activities though the official payment did not approve yet. However, it indicated the rigid system did not follow up the growing needs of the old adults that contained gradual frailty, disability and multiple co-morbidities. We expect the further movement of creating the similar team models in the other cities and enhancing this joined-up care.

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Making "Life story" for the improvement of the relationships between college students and their grandparents-pilot exploration in a university of southern Taiwan

#### LIAO Hui-Yen, LIN Ming-nan

#### Introduction

For a person building the relationship with elderly, interaction with grandparents most are the first step in their life experience. In a survey conducted by ministry of education of Taiwan in 2009, 67.7% didn't live with their grandparents. Among them, 51.2% didn't contact even with telephone. Another survey in 2010 showed scarce interaction between 44% grandparents and grandchildren even they lived together. 62% grandchildren didn't the birthday of their grandparents, 40% of grandparents didn't know the birthday of their grandchildren. The remote relationship between the two generations will cause problems in the aging society. Improvement of their relationships through more close interaction will be helpful in

#### Purpose/Methods

From September to December 2015, 101 senior college students in the course of "geriatric nursing" were recruited. Lectures to introduce the bio-psycho-social-spiritual change of the elders were given. Making "Life story" for one of their grandparent by interview was assigned to the students. The content of the "Life story" included the life experiences of the interviewee, the interaction and dialogue between the student and their grandparent. The "Life story" had to be sent to the interviewee after evaluation by teacher. Questionnaire about what the students learned in making the "Life story" of their grandparent was surveyed. The pilot study was designed to know whether the course can improve the relationship between grandparents and grandchildren.

#### Results

78% of the recruited students didn't live with their grandparents. Among them 92% of the students stated that they will visit more

frequently in the near future. 83% of the students stated that they will be more considerate about their grandparents behavior after complete the "Life story". 87% of the students stated they didn't know a bit about the life story of their grandparents and from the life story they knew what their grandparents' suffering before. 85% of the students stated they became more familiar after making the "Life story".

#### Conclusions

Aged friendly care starts within the family. Close interaction between grandparents and their grandchildren will improve the relationship between the two generations hence improve the care for the senior citizens. Making "Life story" for senior college nursing students in their geriatric nursing course is one of the effective way for a more aged friendly society.

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## Empowerment patient and family through cloud-based telehealth care for terminal patient

### WANG Ying-Wei, CHEN Chun-Hsun, CHEN Hsing-Chu, LIN Chin- Lon

#### Introduction

Many patients with advanced illness wish to remain at home but they are afraid of the helplessness when they experience problems. The use of telehealth can empower individuals experiencing life-limiting illnesses and their caregiver by providing real-time communication between patients and healthcare providers, establishing support network and resource. This can be used to complement current transitions within healthcare system from acute hospital to home and community setting.

#### Purpose/Methods

The rapid development of IT and the preference of palliative home care program in Taiwan lead to the integration of high technology in palliative home care service. The program started since June 2013 and included remote monitor of vital sign of the patient, face to face real-time video consultation with palliative care team, multilingual caring information for patient and caregiver (Mandarin, Taiwanese, Indonesian), caregiver supportive group through social network, medical equipment and social service resources.

#### Results

Three major information data banks had already been developed: 127 videos in 8 language based on patients/caregiver health literacy level, 191 resources about medical auxiliary. Online translation system include aboriginal and Indonesian language had been setup. The 14 days readmission rate was decreased from 6 % to 3.7% one year after the implementation of the system. The satisfaction about the system were more than 90% in all aspects in one year follow up evaluation.

#### Conclusions

One of the major issue in health promoting hospital is the empowerment of patient and caregiver. The other important issue is the connection between community and hospital service. The integration of new technology in palliative care cannot replace the personalize contact between patient and caring team. However, it is complementary to the service and may enhance the quality of care in the community.

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#### Session O4.6: Miscellaneous

## Can Chronic Disease Risk be reduced through Weight Loss?

#### ANG Yen, CH'NG Keat Hui, KRANCARI Molly, LOH Hwa Ling, CHOO Yong Chek

#### Introduction

Research evidence indicates that obesity predisposes an individual to higher risk of developing chronic diseases such as diabetes, dislipidemia or heart disease. Weight loss, even a small amount, is believed to lead to improvements in many health indicators. However, evidence is lacking regarding the effect of weight loss on chronic disease risk factors among individuals in a free living environment. The purpose of this study is to determine if a lifestyle program designed to induce weight loss among its participants would also reduce the chronic disease risk factors.

#### Purpose/Methods

A weight loss program was conducted among 72 obese and overweight individuals (mean BMI 29.02±4.07, mean age 34±6.87). A 3-full day group education session was conducted over 10 weeks, focusing on helping participants change specific lifestyle habits namely dietary and exercise. Group dynamic and support were emphasised throughout the intervention period to encourage a new social norm and accountability. Participants completed both pre-post program blood screening: blood lipids and fasting blood glucose, as well as height, weight, BMI, percent body fat, waist circumference and blood pressure.

#### Results

At the end of the 10 weeks: All participants lost weight (maximum weight loss 13.6 kg, mean weight loss -4.75kg±3.61, or 5.71%±3.99). Hypertensive cases were reduced from 37.5% to 13%. Among the 39 participants, high cholesterolemia cases were decreased from 54% to 33%; high triglyceride cases from 23% to 10%, high LDL cases from 33% to 10%. Elevated blood glucose was normalised after the program (from 2.6% to 0%). Total cholesterol, Triglyceride, LDL, and fasting blood glucose showed a significant drop after intervention (between p<0.001 and 0.05). Significant correlations were found between weight loss and total cholesterol reduction (p<0.05), triglyceride reduction (p<0.05), waist circumference and BMI reduction (p<0.001). A significant correlation was found between the reduction of waist circumference and triglyceride (p<0.005).

#### **Conclusions**

Abdominal fat, triglyceride and cholesterol are well established risk factors for heart disease and diabetes. Notably they are found to be reduced at a statistical significant level, both prepost intervention, and in relation to weight loss. In the battle against the rising prevalence of chronic diseases, perhaps more health promotion effort should be channeled in helping people modify certain lifestyle habits. Our program shows that weight loss through making healthy lifestyle choices is effective in reducing risk factors for cardiovascular diseases.

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# Session O4.8: Creating health literate healthcare organizations – an introduction to the concept and the self-assessment-tool

#### **PELIKAN Jürgen**

Health literacy (HL) is defined as the ability to find, understand, appraise, and apply health related information and is increasingly recognized as a relational concept, being defined by individual skills and capabilities in relation to health system demands. This means that not only individual skills determine a person's HL, but also the availability, understandability, appraisability and actionability of health related services and information. Therefore, HL cannot only be improved by training of individuals but also by reducing demands of healthcare systems and organizations and offering compensatory support such as making relevant information easily accessible, or applying principles of simple language in written and oral information etc. Accordingly, the Vienna WHO Collaborating Center developed the "Vienna Concept of a Health-Literate Healthcare Organization" (V-HLO) which builds upon the above mentioned understanding of HL as well as other work in this field, in particular, the "Ten Attributes of Health Literate Healthcare Organizations" developed by the Institute of Medicine in the United States. V-HLO broadens the IOM approach by using the HPH strategies and linking it more systematically to quality management. In detail, V-HLO specifies how healthcare organizations and systems can make health related information better accessible, understandable, appraisable, and applicable to the three target groups which are also fundamental within HPH. These are patients, staff, and citizens. The concept has four action domains: 1) access to and living in healthcare organizations; 2) treatment and care 3) disease prevention; 4) health promotion. In order to make the concept of V-HLO applicable to the practice of healthcare organizations, an organizational self-assessment tool for hospitals as the largest healthcare organizations was developed, consisting of 9 standards, 22 sub-standards and 160 measurable elements. To investigate the feasibility of the tool, a pilot study was conducted with nine Austrian hospitals between autumn 2014 and spring 2015. Results show that the tool is very understandable, the items are considered as relevant, the effort to conduct the selfassessment was considered reasonable, and differences in measurements between standards and organizations suggest that the tool can support organizational self-assessment for

planning of measures to improve organizational health literacy as well as benchmarking between organizations. Furthermore, a revised version of the tool and a toolbox with interventions in relation to each of the 9 standards is now available to Austrian hospitals. While V-HLO has proven to be connectable to Austrian health care services, the tool has now been translated to English to make it accessible to other countries and in particular, HPH member hospitals. Accordingly, the aim of the workshop is to make the audience familiar with the concept of V-HLO as well as the self-assessment tool. It is hoped that the workshop will inspire HPH members as well as others to pilot the concept and tool in other healthcare contexts and to find partners for a working group within HPH to share experiences.

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## Session O4.9: Planetree Hospitals and the Campaign for Action: Building healthier Communities

Planetree Hospitals and the Campaign for Action: Building Healthier Communities

#### HASSMILLER SUSAN

#### Introduction

The United States spends nearly \$3 trillion a year on health care, more than any industrialized nation. Yet, we have worse health outcomes and lower life expectancies. Something is not working. Instead of focusing on sickness, we must also promote healthy lifestyles and create a society that gives all people and opportunity to live the healthiest lives possible regardless of race, socioeconomics, ethnicity, or geographical location. Planetree facilities are key partners in building this culture of heath.

#### Purpose/Methods

The Future of Nursing: Campaign for Action, an initiative of AARP and the Robert Wood Johnson Foundation, works to ensure that everyone in America can live a healthier life, with nurses as key partners to provide care and promote health. The Campaign includes 51 state Action Coalitions with multiple stakeholders, including Planetree facilities. Susan B. Hassmiller, PhD, RN, FAAN, RWJF's senior nursing advisor, and Campaign director, will discuss Action Coalitions partnerships with Planetree facilities for a healthier America.

#### Results

Key examples of how Planetree hospitals help to build a culture of health in their community include two partnerships; the Nebraska Action Coalition partnering with Good Samaritan Hospital in Kearney to provide holistic health care for mental health patients; the Wisconsin Action Coalition teamed with Aurora Health on a mental health project with emergency

departments and community partners. Audience members will identify ways their own facility can work to build a culture of health in collaboration with the Campaign.

#### **Conclusions**

There is significant synergy between nurses, other health care team members, especially patients as Planetree facilities work to improve health in their communities. Planetree facilities are ideal entities to foster a patient centered-approach to building a culture of health. The Nebraska and Wisconsin Action Coalitions will showcase exemplars of their partnership efforts and will highlight ways other Planetree facilities can use their community networds to build a Culture of Health. The discussion will facilitate elements of replicability.

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#### Session O4.10: Symposium: Health Promotion for operation and emergency patients

#### **TØNNESEN Hanne**

#### Overview:

This session is going to explore the relevance and effect of health promotion activities for patients undergoing surgery and entering the emergency room. The presentations include new evidence on several smoking, alcohol and drug interventions among orthopaedic and cancer patients as well as emergency patients. Furthermore, facts will be presented regarding experiences of pain for smokers and alcohol drinkers. The symposium will include a discussion among the participants and speakers.

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## Experience of pain and lifestyle risk factors

#### ROTBØLL NIELSEN Per, WEST SKAARUP Anette, TØNNESEN Hanne

#### Introduction

It is a clinical impression that unhealthy lifestyle influences the experience of pain; e.g. alcohol abusers experience less or no pain, while smokers more often experience heavy pain after trauma or surgery. Therefore, the aim was to investigate the association between lifestyle risk factors and experience of heavy postoperative pain and their duration after major orthopedic surgery.

#### Purpose/Methods

109 patients undergoing spine, hip or knee surgery were included. Lifestyle was recorded as self-reported alcohol

consumption, smoking, physical inactivity, obesity and risk of malnutrition based on the HPH DATA Model. Pain experience was measured on a visual analogue scale of 0-100mm for the nociceptive and the less frequent neuropathic pain. Heavy pain was defined as maximal pain >30mm at rest, 50mm as dynamic, or duration of maximal pain >40min. Preoperative pain history and the methods of pain relief were noted. The postoperative pain was followed for three days.

#### Results

Univariate analyses were performed prior to the final multivariate analyses. Interestingly, unhealthy lifestyle, age or gender was not associated with heavy postoperative pain, except for physical inactivity being negatively associated with the rare neuropathic pain. The study confirmed the significant associations between preoperative and postoperative heavy pain.

#### Conclusions

The results showed no or very little support to the clinical impression that patients' lifestyle influenced the experience of pain.

#### Comments

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## Scand-Ankle – Effect of alcohol intervention among ankle fracture surgery (RCT)

#### TØNNESEN Hanne, EGHOLM JW, OPPEDAL K, LAURITZEN JB, MADSEN BL, PEDERSEN B

#### Introduction

Patients with high alcohol consumption have increased risk of postoperative complications. The aim of this study was to evaluate the effect of a new gold standard program for alcohol cessation intervention in the perioperative period.

#### Purpose/Methods

Overall, 70 patients were included and randomly allocated to either standard care or the 6-weeks gold standard program aimed at abstinence perioperatively. The structured patient education program involved weekly intervention at the orthopedic outpatient clinic. Furthermore, patients were provided with thiamine and B-vitamins, prophylaxis and treatment for alcohol withdrawal symptom, and disulfiram to support abstinence. Biochemical validation of alcohol intake was done at the weekly intervention meetings and follow-up visits after 6 weeks and 3, 6, 9 and 12 months. The outcomes were postoperative complications, alcohol intake and cost-effectiveness.

#### Results

For the first time, all the results on postoperative complications, alcohol consumption and cost-effectiveness will be presented at the conference.

#### Conclusions

The study will show if the 6-weeks gold standard program can reduce postoperative complications after emergency surgery. The results will be of relevance for the individual patient and the society at large.

#### Comments

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## STOP-OP - Compliance with alcohol and smoking intervention at bladder cancer surgery (RCT)

### VAHR Susanne, THOMSEN T, THIND P, TØNNESEN Hanne

#### Introduction

Smoking and alcohol consumption above two drinks per day is associated with an increased risk of postoperative morbidity. For bladder cancer patients the preoperative period is often very short. An ongoing multicenter randomized controlled trial is investigating the effect of an intensive smoking and alcohol cessation intervention following the 6-weeks gold standard program (GSP). An important part of the RCT is to evaluate patient compliance with the intervention, which is the aim of this presentation.

#### Purpose/Methods

The GSP combines patient education and pharmacologic strategies. The GSP for alcohol and smoking cessation interventions begin shortly before and continue 5 weeks after the major bladder cancer surgery. It consists of five meetings in the six weeks, where the patient meets with a trained health promotion nurse. Whenever possible the meetings are combined with visits already planned in relation to the bladder cancer surgery. If extra visits are planned, expenses for transportation were paid.

#### Results

Till now 24 patients have been included, and 11 patients were allocated to the GSP. Hitherto, the compliance of the included patients was exceptional high, since all 11 patients have attended the 5 meetings planned in the GSP, meaning a 100% of

compliance with the intervention. More results on compliance will be presented at the conference.

#### Conclusions

Surgical cancer patients seemed to be very compliant with alcohol- and smoking cessation interventions in the perioperative period.

#### **Comments**

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## Health Promotion in Emergency Department: Early initiation of intervention for Opioid Dependence

#### D'ONOFRIO G, O'CONNOR PG, PANTALON MV, CHAWARSKI MC, BUSCH SH, OWENS PH, BERNSTEIN SL, FIELLIN DA



#### Introduction

Opioid-dependent patients often suffer from many severe conditions and frequently use the emergency department (ED) for different kinds of medical care. It would therefore be relevant to consider initiating treatment opioid dependence in the ED. Thus the aim of this study was to test different interventions for opioid dependence in an ED setting.

#### Purpose/Methods

In a randomized trial 329 patients with opioid dependence were allocated to three arms of different levels of intervention after screening: (I) 104 patients were referred to treatment only; (II) 111 patients had Brief intervention (BI) in ED + facilitated referral to community- based treatment services; (III) 114 patients had BI & buprenorphine/naloxone in ED + referral to primary care for 10-week follow-up The primary outcome was undertaking inpatient addiction treatment 30 days after randomization. Secondary outcomes were days per week with illicit opioid use, negative test for illicit opioid in urine, HIV risk, and use of services.

#### Results

Overall, significantly more patients had undertaking inpatient addiction treatment services in group (III); 78% vs 45% in group (II) and 37% in group (I) (P < 0.001). Group (III) reduced the weekly number of days with illicit opioid use from 5 to 1 vs 6 to 2 days group II and 5 to 2 days in group I (P < 0.02 - 0.001). Furthermore, significantly fewer patients from group (III) used inpatient addiction treatment services compared to the other groups; 11% vs 35% and 37%, respectively, (p < 0.01). There was no difference among the groups regarding the other secondary outcomes.

#### Conclusions

Patients entering ED with opioid dependence had significantly better effect of an early initiated program of BI combined with buprenorphine initiated at ED and referral to 10 weeks follow-up at primary care compared to referral alone or in combination with BI.

#### Comments

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## Session M1.1: Health promotion during pregnancy and after delivery

MammePiù. Gaining health in pregnancy

#### SBROGIÒ Luca, BELTRAME Laura, MICHIELETTO Federica, SALVAGNO Lisa, RUSSO Francesca

#### Introduction

MammePiù. Gaining health in pregnancy is part of the 2014-2018 comprehensive regional strategy of maternal and child health promotion. The aim of the programme is to train midwives and mother and child health services' professionals, that women and new mothers face during pregnancy and immediately after child birth, in healthy lifestyle counseling techniques, in order to expand healthy promotion network (no smoking, physical activity, no alcohol drinking, healthy eating) and to provide continuity care to woman

#### Purpose/Methods

2015-2018 programme provides the opening of an experiential workshops in "S. Giovanni e Paolo" Hospital in Venice. Each year, in Veneto Region there are about 40.000 childbirths, experiential workshops are addressed to about 20-30% of pregnant women (first trimester of pregnancy) that take part at childbirth education classes: they will spend a experiential pathway and will test 4 workshops: smoking (smelling workshop, relaxing training, music therapy), alcohol (no alcohol drinks), physical activity (physical activity experiences), eating (food diary and healthy cooking).

#### Results

The programme started on January 2015: a regional working group has been identified, two inspections at the future workshops headquarters were done and we are going to develop the programme and workshops communication campaign. Experiential workshops will be open 3 times a week for about 40 weeks in a year. Small groups of 20 pregnant women a day will visit the workshops, about 2400 in a year (10% of pregnant women that take part to childbirth education classes).

#### Conclusions

MammePiù. Gaining health in pregnancy future tends to prevention strategies of 4 risk behaviors (smoking, alcohol, unhealthy eating, sedentary lifestyle) during pregnancy. The goal will be to open experiential workshop in each of 7 provinces of Veneto Region and also increasing opening days

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## The effect of health education and early phone-call-back on reduce gestational diabetes mellitus

#### LU Mei-Chun, WANG Panchalli, HSU Yueh-Han, CHEN Wei

#### Introduction

The prevalence of gestational diabetes mellitus (GDM) ranges between 0.7% and 10.1% due to differences in race and diagnostic criteria. Although the early detection of GDM is important to reduce adverse pregnancy outcomes, its diagnosis is still controversial. Previous studies (1, 2) have shown that the fasting duration influence the predictive value of the gestational diabetes screening test. Fasting at least 2 hours may lead to diagnosis more GDM.

#### Purpose/Methods

Base on the evidence (1, 2), we educated the pregnant woman who underwent the 50-g glucose challenge test (GCT) needed fasting at least 2 hours. If the GCT result was positive, we would call her back within two weeks to receive further examination, 100-g oral glucose tolerance test (OGTT). Our purpose was to investigate the effect of health education and early phone-callback on reduce GDM compared with the previous study which women with only usual care.

#### Results

Two prospective studies enrolled 1893 pregnant women who underwent 50-g GCT fasting at least 2 hours, which previous study had 509 women without intervention in 2011 and the current study had 1384 women with usual care in 2014. The intervention group had significant lower GDM rate compared with usual care group (3.6% vs. 6.9%, p=0.002). After adjusting weeks of receiving OGTT, maternal age, nullipara status, receiving GCT time, pre-pregnancy BMI, and weight gain, the risk of GDM was 0.36 (0.19-0.67).

#### Conclusions

The intervention of health education and early phone-call-back could reduce GDM rate.

#### Comments

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## Postpartum Rehabilitation: Health Promotion for Mothers in Japan

#### SASAKI Satoko, WONG Toh Yoon, HOSHIGA Ikuko, OGATA Keiko, MURATA Hirohiko

#### Introduction

The period after childbirth is often accompanied by discomforts such as back pain, joint pain, urinary incontinence and poor abdominal function. However, in Japan, pregnancy and childbirth usually overshadow the postpartum needs of the mother and these uncertainties are often overlooked with mothers not knowing where to seek advice. Since June 2015, our hospital introduced a postpartum rehabilitation program to help support and nurture the mother's mental and physical well-being.

#### Purpose/Methods

Mothers 1 to 12 months postpartum are eligible to join the rehabilitation program which recruited up to 8 participants per course. The courses were conducted by two physiotherapists and included programs such as seminars on the physical changes before and after childbirth, breast feeding position, postpartum exercises and abdominal breathing sessions.

#### Results

Records showed 63 participations in the postpartum rehabilitation program. A total of 9 courses were conducted from June until December 2015. From questionnaires taken after the courses, 98% of participants were satisfied with the contents and the way the courses were conducted. On whether the exercises introduced in the courses were applicable, 93% indicated that they were able to continue these practices at home. Questionnaires answered by repeaters showed that the majority of participants tried these exercises at home.

#### **Conclusions**

In Japan, there is still inadequate interest (physiotherapy aspect) in the field of women's health. Due to the increased responsibilities after childbirth, women have little time to access the resources and learn about the physical challenges they face at different life stages. Our postpartum rehabilitation program gives mothers in our community the opportunity to engage with their peers as well as healthcare professionals. We hope to continue this program to support women's postpartum wellbeing.

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## Session M1.2: Promoting maternal and child health care

**Customizing a Maternal and Children Healthcare Workshop in a Tibetan** 

## Community Healthcare Center Through Results of a Local Survey

### YANG Wen-Chien, LIU Hsin-Ming, YANG Kuen-Cheh, WU Chia-Fang

#### Introduction

Since 2012, NTUH Hsin-Chu branch's volunteer team has cooperated with local schools to improve students' health condition in Ladakh, a region in northern India. The summer in 2015, we expanded our service to nearby Tibetan community. Tibetan Primary Health Care Center (TPHCC) is a local clinic with one manager and around ten health workers. We hoped to bring positive influence and provide more practical healthcare knowledge to the health workers by conducting customized workshops in TPHCC.

#### Purpose/Methods

In order to acquire basic information about health conditions of mothers and children, we implemented a survey through a questionnaire with female staffs in TPHCC. The questionnaire included the frequency of prenatal exams during pregnancy, whether they took health supplementary during pregnancy, what they fed their children (breast milk or infant formula), when they added supplemental food for babies and what it was, whether they knew the importance of iron deficiency anemia, whether their children got regular vaccination, and etc.

#### Results

Totally, we talked with 7 female staffs with our questionnaire. We found out that infants here were almost fed with breast milk. Supplemental food was introduced from 1 to 6 months old. Most supplemental food were wheat, barley and porridge. We then launched a workshop to introduce the importance of iron deficiency anemia in infants. We also discussed with health workers about iron-rich food which were available in this area and suggested them to spread the idea to local women.

#### Conclusions

Since health workers in TPHCC owned strong basic background knowledge, what we wanted to do was working with them more efficiently. This was a good example that we found out a possible soluble problem according to the information derived from questionnaires. By providing a workshop including lectures and discussion, we and local health workers together identified the iron-rich food here. The idea might help the children in this Tibetan community. Further effectiveness would be evaluated in the following years.

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Nurses' use of a web-based national guide for Child Health Care

TELL Johanna, OLANDER Ewy,
ANDERBERG Peter, BERGLUND Johan

#### Introduction

Rikshandboken is a Swedish web-based guide, intended to be an innovative direct service provision for personal in Child Health Care (CHC). In 2015, a new national CHC-programme was implemented. Together these aim to provide a quality-assured support advocating an equal and sustainable CHC. CHC-nurses use of Rikshandboken is a prerequisite for utilising the programme. As several studies indicate that colleagues and personal experience are important sources for nurses' decisions, a deeper understanding of the use of this technical innovation is required.

#### Purpose/Methods

The aim of this study was to investigate how CHC-nurses use Rikshandboken and factors affecting its use. The study was a comprehensive web-survey of 2376 CHC-nurses in Sweden answered by 1309 nurses. The questionnaire consisted of questions about computer and internet use, acquisition of knowledge and methodological guidance, use of Rikshandboken and factors influencing the use as well as questions about the guide, content, design, accessibility and usability. Statistical processing was performed using descriptive and analytical methods.

#### Results

Rikshandboken was widely used to confirm knowledge, to seek new knowledge and methodological support. Almost all nurses were satisfied with the usability, content and design and felt that a national guide for CHC was important. There were regional differences in the use of Rikshandboken, and the number of years in the profession affected the use. Time required to use Rikshandboken, support offered by main CHC units and the website's design, were shown to be important factors for using the guide.

#### Conclusions

The results indicate that an established web-based guide is an appropriate setting when a new national programme is implemented. The usability and design are crucial factors in the acceptance and use. In order to achieve an equal and sustainable CHC, it is essential that all nurses use the national guide to provide evidence based practice. The importance of main CHC units as regional facilitators in the innovation process should not be underestimated.

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## Session M1.3: Community health promotion in times of crises and specific interventions

The impact of the financial crisis on access to health services in Greece

PETROULIA Ioanna, BAKIDES Sofoclis, TOUNTAS Yannis



#### Introduction

Greece has been profoundly affected by the global financial and economic crisis, with wide-ranging economic, social and political consequences. In 2015, the country entered its seventh year of recession and was operating within severely constricted fiscal limits. This has led to an inexorable financial burden for Greek citizens, which, in turn, has had an adverse impact on health care provision.

#### Purpose/Methods

The national household survey Hellas Health VI was conducted during April 2015 and covered both urban and rural areas of the 13 geographical regions. The sample of 1001 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

20% of the respondents have not received, although needed, health services during the past year (students: 33%, unemployed persons: 27%). The main reported obstacles were economical difficulties (57%) and lack of time (31%). The majority of those reported economical difficulties were unemployed (84%) and freelancers (62%). Compared to 2009, 40% of the participants stated that access on health care services worsen and 52% stated a greater financial burden for health care services.

#### Conclusions

Greece's health crisis is worsening as a result of continued healthcare budget cuts. The harmful effects of austerity are linked to the increasing inability of patients to access the health system and deterioration in the mental health of Greek people. Policy makers should not disregard the implications that fiscal policies have on the health sector. Greater attention is needed in order to ensure that individuals would continue getting public health care and having access to preventive and social support services.

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## Guide to Patient Rscort System in Health care Setting in The Gambia

#### TRAWALLEY Sanjally

#### Introduction

In The Gambia, until now, there is no organized system to escort patients. In most cases, it is a relative (family member), a friend, a neighbor or first aider using a car, donkey/horse cart, motorcycle, pedal bicycle or foot. In case of conditions resulting from assault or accident, police may be engaged as an escort. A more organized or formalized escort mechanism (referral procedure) is applied when a sick person is referred from one health facility to the other.

#### Purpose/Methods

No structured tool is being used here, but merely a casual discussion with some patient escorts in different health care

settings. Health workers were also asked to provide their views about patient escorts.

#### Results

Patient escorts accuse health workers for being insensitive to traditions and customs. Escorts blame them for irrational use of medicinal and related supplies resulting to stock out of such supplies. Health workers are also criticized for not paying adequate and timely attention to patients

Escorts on the other hand are seen to be insensitive to patients confidentially. Escorts are incriminated for littering the health facilities with solid wastes as well as indiscriminate spitting, urinating, defecating and movement into clean rooms with dirt. Escorts also make disturbing noise once they gather in numbers

#### **Conclusions**

Owing to absence of clear cut guidelines or defined roles of an escort, there is often sour relationship between health workers and escort. Access to quality essential services especially emergency care, reduced waiting time and demonstration of empathy by health workers has been regarded as a sin-quo no for client satisfaction, escorts should observe confidentially and provide resources that are within their means but unavailable at health facilities. Thus, it is proposed that, a research be conducted to formulate a contemporary patient escort system in The Gambia.

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## Weight Management Groups in health care, organization and evaluation

#### JÄRVI Leea, KUJALA Veikko, MÄKELÄ Lea, UKKOLA Olavi, HIRSSO Päivi

#### Introduction

According to the Finnish clinical practice guidelines, overweight adults should have lifestyle counselling in groups. In 2014, several weight control groups were organized in Northern Ostrobothnia Hospital District, both via video conferences and face to face groups. Video groups were organized by specialists at the Unit of Primary Health Care. To get a comparable data we decided to create a system for follow-up and evaluation of obesity groups in cooperation with municipalities.

#### **Purpose/Methods**

The purpose of this study is to promote the implementation and quality assurance of group counselling in primary health care centers in Ostrobothnia Hospital District. In order to document patient data systematically, group counsellors and IT administrators were trained by providing a total of five identical training sessions for them. Counsellors recorded the results of the weight control groups into the electronic patient record system, from which research material was collected in collaboration with the Health Care Centre IT administrators.

#### Results

A uniform recording system of weight control groups and reporting practices was created. In 2014, a total of 36 weight control groups were organized, 22 of which were video groups and 14 face to face groups. Preliminary results show that 80% of the persons who participated in the weight control group achieved successful weight loss and 17-50% of the participants achieved a significant weight loss.

#### Conclusions

The collected data acts as feedback to the counsellors and their superiors and encourages them to arrange more and better obesity groups and develop lifestyle counselling practices. Data collection of obesity groups will be continued in cooperation with health care centers. Weight management cuts the adultonset diabetes risk in half. This is of great significance in reducing health care costs.

#### Comments

More research is needed.

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## Utilization of cancer screening in Taiwanese females, 2002-2010

#### TU Shu-Yun, SHI Leiyu, CHIOU Jeng-Yuan

#### Introduction

The National Health Insurance Bureau in Taiwan launched a breast cancer screening program and Pap smear tests since 1996. This study focuses on the utilization of the two main women cancer screening (breast cancer screening and Pap smear testing). Female nurses and medical personnel were compared with those in females in the general population.

#### Purpose/Methods

The analysis included 2005 Longitudinal National Health Insurance Database. A panel study (repeated cross-sectional study) was used to estimate trends in the rate of cancer screening participation in the general population and medical personnel during 2002-2010. The rate of participation in cancer screening programs during 2002-2010 was calculated as the triennial coverage ratio for Pap smear screening, and the biennial coverage rate for mammography. The Poisson regression was used to identify temporal trends in cancer screening participation between groups.

#### Results

2004 and 2010 coverage rate of Pap smear were 50.00% and 52.69% in general population, 39.09% and 40.61% in physician, 49.88% and 49.35% in pharmacist, 47.36% and 53.29% in nurse. Pap smear was significantly increasing in Nurse. 2003 and 2010 coverage rate of mammography screening are as follow: 5.51% and 24.94% in general population, 7.41% and 25.6% in physicians, 12.68% and 25.18% in pharmacist, 13.43% and 34.4% in nurse. Mammography screening rates were increasing significantly except for pharmacist group.

#### **Conclusions**

In Taiwan increasing utilization of Pap smear screening and mammography services by general population and medical personnel were observed. The fraction of coverage were increased differently between groups, referred to further studies are needed to explore the factors that affect utilization of cancer screening programs among different social-demographic status.

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## Session M1.4: Active ageing and the application of new technologies

Three Strategies for Active Aging in Taipei Wenshan Community

### SHIEH Ying-Hua, CHAN Hsiao-Wen, LI Chun-Ying, LIU I

#### Introduction

According to the Ministry of Health and Welfare, senior citizens living in Taipei comprised 11.7% of the population. Taipei Wenshan community has one of the highest elderly populations (up to 12.3%). In addition, 2014 statistical results showed that chronic diseases namely cardiovascular disease, diabetes, hypertension, are major causes of death in Taiwan secondary only to cancer.

#### Purpose/Methods

To promote active aging in Taipei Wenshan community, we proposed three strategies; (1) Raising awareness of chronic diseases prevention through health education: topics include having and preparing healthy diet, importance of physical activities, osteoporosis and fall preventions and common mental health issues in the elderly. (2) Creating a healthier community through setting up walking trails at local park and village and starting walking groups with advice for daily walking laps. Assisting 10 community restaurants to create low-sodium and low calorie recipes. (3) Using technology driven healthcare to provide remote patient monitoring. Heart rate and blood pressure measuring devices were set up at district office and the elderly were taught how to use the software and tools to facilitate more independent, long distance monitoring of their health.

#### Results

A total of 407 members of the elderly community participated in our 10 active aging health education sessions. The majority of those who participated had a greater awareness of chronic illnesses and 52% of the elderly stated that they would choose to dine at restaurants providing low-sodium and low calorie meals. Restaurants that we assisted had also increased their revenues by 12% since joining the program. 80 people joined our community walking groups (walking daily for 2 hours at the 2 newly set up trails). A total weight loss of 1130.4kg was also achieved from people of Taipei Wenshan community. 31 elderly

participated in telehealth services (using services every 3-5 days) and relevant information was transferred to health care professionals allowing for intervention and modification of treatment plans.

#### Conclusions

The 3 strategies implemented for active aging have integrated available local health resources with new technological tools and showed promising results. The elderly community have an improved understanding of the illnesses that affect that age group and this has contributed to changes in their lifestyle and behavior to allow them to have a more active and healthy aging process.

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Development of a systemic webbased health education and information service system for older adults

#### LIN Chih-Hsueh, CHEN Yen-Ting, LIU Ting-Chia, LIU Chiu-Shong, LIN Cheng-Chieh, CHO Der-Yang

#### Introduction

Aging is a very important clinical issue in 21th century, and Taiwan is one of the nations growing old fastest. In order to stay healthy aging, it is critical to have correct knowledge about normal aging, exercise, diet, and aging-related disease. However, traditional health education model in hospital was not very effective, and current online Chinese information is not so reliable. Systemic web-based health education and information made by trustworthy medical unit is necessary.

#### Purpose/Methods

A multidisciplinary team was set up, consist of geriatrician, web IT engineer, vision engineer. The web-based health education and information for elders were written by experienced geriatric specialists including physician, nurse, nutritionist, social worker and pharmacist, and the topics were decided according to preliminary questionnaire. User-friendly interface for elders was modified by web IT engineer and vision engineer.

#### Results

There were 212 articles in our web-based health education and information, divided into "about aging", "health aging", "aged disease", "care resource", and "health exam information". After 4 months of trial, over 150,000 page view were made, and the top 3 articles are "care facilities for dementia", " know about delirium", and "know about constipation".

#### Conclusions

Systemic and organized web-based health education and information made by medical center are popular, it might because of it is reliable and useful. The topics related to reader's life experience and need are relatively more interesting.

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#### Innovative Application of Pharmaceutical Record Cloud System

#### SHIH Ling-Na, HSU Jiin-Chyr, LIN Chin-Feng, CHEN Ying-Ru, WANG Hsiang-Ling

#### Introduction

With technological and medical advancement, human life expectancy has been increasing per year. With the rapid aging population, patients in Taiwan with multiple chronic conditions spend about NT\$70 Billion per year, that's 5 times more than what young adults spend. In terms of improving healthcare quality and maintaining medical expenses, it's imperative to integrate cross-hospital patient system to prevent overmedication, inappropriate prescription and reduce waste of medical resources to ensure safe medication usage for patients.

#### Purpose/Methods

Initial report focuses on clinical records from October 15th, 2015 to November 15th. There were 30 patients aged 65 and above with two or more chronic conditions. When patients visit the hospital, they can fill out "Providing Pharmaceutical Record Agreement Form" for data collection and use Anatomical Therapeutic Chemical (ATC) Classification System to analyze any overmedication or drug interaction. If a case is proven, the system will alert physicians and remind pharmacists to provide safe medication usage instructions to patient.

#### Results

Initial report shows 48% of the cases have visited 2 or more hospitals with 67.5% of the visits are in our hospital. Within the 48% of the cases, ATC detected 50% overmedication (medication with the same 5 preceding digits) and 66.7% of that proved to have overlapping pick-up date and only 33.4% don't have overlapping pick-up date. Within the cases, drug antagonisms were found to be present.

#### **Conclusions**

Pharmaceutical Record in the Cloud is the first step to break through technological barriers for medical institutions. Utilizing "Healthcare Pharmaceutical Record Cloud System", it can easily provide physicians and pharmacists instant access to patient medication history and prevent physicians prescribing same medication and patient from being overmedicated. Not only can the system help with drug safety usage and save medical expenses, but also enhance public health self-management.

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## Session M1.5: Creating a Culture of Health through Innovation & Partnership

Passport to Health (P2H): Engaging Veterans in Chronic Disease Self-Management

#### **MORTENSEN Laura, KRUEGER John**

#### Introduction

The Veterans Health Care System of the Ozarks (VHSO) serves over 59,000 Veterans in 24 counties. VHSO statistics show that over 24% of these Veterans have at least one or more of the four major chronic diseases. Passport to Health uses a population health design to improve care for Veterans by offering annual testing and exams scheduled in one visit. These group visits encourage Veterans to take responsibility and partner with their health care team to manage their condition(s).

#### Purpose/Methods

VHSO has held nine Passport to Health events since May 2014. The most popular topics include diabetes management, hypertension and hyperlipidemia. Staff involved are Pharmacy, Eye clinic, Nursing, Laboratory, Nutrition and Food Service, Mental Health, Diabetic Education and monitor clinic, Volunteer Services, and Social Work. The overall goal of P2H is to reduce veteran wait time, increase self-reliance and self-care, improve health literacy capacity and mastery of skills in self-management and create a learning community of peers.

#### Results

The results have been overwhelmingly positive and Veterans have reported learning new ways to manage their chronic diseases. Studies demonstrate Self-Efficacy (level of confidence) as an indicator of improved outcomes and P2H definitely provides this opportunity for Veterans. To this day, P2H has involved 98 Veterans. The event maintains a 95% or above in positive scores for the measured criteria of provision of instructions, opportunities to talk to VHSO staff, receipt of information, and desire to return to another event.

#### Conclusions

P2H is a new adventure in developing programming at VHSO that is Veteran-centered and designed to meet the precise population health needs of a specific Veteran population. The program is gaining interest and momentum as PACT teams learn about it and get involved. VHSO leadership is supportive and encourages further events aimed at chronic pain management, CHF and Women's health. The most important measure of success for P2H is the response of satisfied Veterans who improve chronic disease management skills.

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# Using Team Resource Management to enhance the integrity rate Medical Intensive Care Unit of the communication process

#### KAO Yen-Shuang, SHEN Yu-Hui, HSU Ting-Fen

#### Introduction

Delay in the management of emergency patient could easily lead to irreversible damage or danger even with expert knowledge and skills, without proper communication within the team will usually jeopardize patient safety and lead to increased mortality and unnecessary malpractice lawsuit. The study found that effective team communication plays an important role in the management of emergency care.

#### Purpose/Methods

In ICU from January to December 2014 total of 63 first aid cases, 21 cases abnormal report, 17 cases miscommunication. The decrease communication rate was due to lack of training understanding, skills and use of the "Emergency Aid Standard Operating Procedure". From March to December 2015 improved strategies by updating emergency communication flow chart design Team Resource Management service education training courses, Making Video guide for emergency communication procedure, Give incentives for using Team Resource Management skills.

#### Results

The study from March to December 2015 with a Team Resource Management, the ICU complete emergency communication is indeed improved from 8% to 94%. Emergency medical ICU cognitive communication process, The statistical average score increase from 42 points to 97.6 points, the result produced can effectiveness of communication in enhancing the integrity rate of ICU emergency care.

#### **Conclusions**

The lack of proper training skills in Team Resource Management (TRM) by the medical staff leads to confusion of Assign work. After training in TRM and following the emergency communication flow diagram and emergency stop, look, listen video guide. The medical staffs know their role and responsibilities and respond quickly to achieve maximum patient care.

#### Comments

The implementation of emergency communication process has reached good results. But the coming of new staff and other staff from other department should undergo Team Resource Management training. It recommends that Department of Nursing using Team Resource Management incorporated into new staff in-service education and training and the hospital annual in-service education courses. Team Resource Management training improved the medical understanding of teamwork and communication. It improve the quality services and patient safety in emergency care.

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## With health literacy painless health care in Taipei Tzu Chi Hospital Preventive Health Medical Center

#### **HO Lin chen**

#### Introduction

Taipei Tzu Chi Hospital Preventive Health Medical Center was founded in 2006. Multiple health promotion medical services, medical examinations, professional health advice and medical treatment were provided in this medical center in order to achieve three sections five preventive medicine care of preventive medicine health care. As mention early 4673 people were examined at Taipei Tzu Chi Hospital. We found 50 people are early detection of cancer in 2014.

#### Purpose/Methods

Health examinations are provided at Taipei Tzu Chi Hospital include: blood (CBC, BCS), cancer screening indicators, chest and abdomen X-ray, electrocardiogram, abdominal ultrasound, gynecological ultrasound, Pap smears, mammograms, gastroscopy and colonoscopy.

#### Results

As mention early 4673 people were examined at Taipei Tzu Chi Hospital. We found 50 people are early detection of cancer in 2014. These cases have the concept of health; for instance, they know they should go to the hospital to complete the medical health examination to achieve early detection and early treatment of disease when they have no symptoms of the disease. The data are as follows:(table)

#### **Conclusions**

In this center, 18-22 persons/day are examined (maximum capacity), these persons used their own fee rather than medical health insurance to receive health examination. 4673 people were examined in 2014, which reach more than 90% services. It is the mission in Taipei Tzu Chi Hospital regarding the guardian of life, health and love.

#### Comments

Currently, these 50 persons are keeping medical treatment at Taipei Tzu Chi Hospital. The service satisfaction is more than 97%. At Taipei Tzu Chi Hospital, preventive medicine health inspection services, health assessment, physician consultation and health management for the patients of physical and mental fatigue, high blood pressure, heart disease, diabetes and cancer. Health care and early medical services are also provided in this hospital. We hope we are a Medical and Humanities hospital and people most trusted hospital.

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Session M1.6: Organization and management to create a change towards a culture of health

# The Development of New Physician/Nurse-Patient Relationship in the Reform of Taiwanese Health Care System

#### CHANG Yu-Ju, CHI Wei-hsian

#### Introduction

Taiwanese healthcare system, National Health Insurance, was established in 1995 and population coverage has reached 99% nowadays. Under the influences of the healthcare system, Taiwanese medical system gradually becomes marketized and commercialized. This new development paradoxically results in loss of the key concept in the medical treatment: caring-centered practice. In this new medicalized environment, good caring-centered practices could be not only neglected by physicians and nurses, but may also easily impended by the patients and their family members by themselves.

#### Purpose/Methods

This study implements in-depth interviews with some physicians and nurses to explore their new working conditions and difficulties in terms of physician/nurse-patient relationship. Base on the interview records, we coded and analyzed the verbatim drafts, tried to reveal the strategies that physicians and nurses use during their interactions with patients. We try to interpret the function of different strategies applied.

#### Results

1. Over-emphasizing the high efficient treatment in medical managerialism may have negative influence on the physician-patient relationship; 2. Highly medialization improves the patients' health awareness, but may danger the confidence relation between physicians (as well as nurses) and patients due to the wrong health information spread on the media; 3. The rigidity of the medical evaluation system may weaken the working passion and quality of the nurses.

#### Conclusions

The new physician/nurse-patient relationship, being newly formed in the reform of Taiwanese Health Care System, is full of tension. The related problems are double-sided: Physician and nurses cannot see, under the working pressure of medical managerialism, many possibilities to empower their patients. On the other side, patients and their family members have less confidence on the medical experts, with resort to false information widespread in internet. The challenge of establishing a healthy, positive physician/nurse-patient relationship is getting huge.

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#### The Result of Triage Training for Emergency Nurses

SU En-Ping, SHEN Shu-Hua

#### Introduction

Emergency triage has been applied in healthcare in Taiwan.Category I is the mental illness in critical condition, if not dealt with immediately life-threatening the safety of the individual or others. Category II means there is no immediate personal or endangers the safety of others, but there are those who fear danger. Category III is no self-injury, the risk of danger, but obviously troubled by mental illness. Category IV is no acute psychiatric symptoms, may delay treatment or referral outpatient department.

#### Purpose/Methods

The purpose of this study was to explore the effectiveness of emergency nurses receiving two weeks triage education and training, as a follow-emergency clinical nursing education and training programs planning basis. This retrospective study collected emergency triage classification daily reports of emergency visits patients, analyzed by nursing records, statistics triage categories I and IV emergency patient, and categorize the reasons of visiting related causes analysis and statistics.

#### Results

Data collection from January 20 to June 21, 2014. There were 465 attendances in these 152 days. 85 visits (18.28%) belonging to the Category I triage, of which 18 people leave from the hospital after treatment, accounting for about 21.18%. The Category II triage were 178 people (38.28%), Category III was 175 visitors (37.6%), the Category IV 27 visitors (5.8%), there are two people were hospitalized, this 2 patients was newly diagnosed cases of hospitalization.

#### **Conclusions**

The results found that about 56.56% with emergency intensive triage criteria, requiring immediate treatment, but in the Category I triage is still 18 people refused hospitalized and leave hospital, The analysis found that triage standard of education and training is sufficient, but for the families of the disease health education to be strengthened, the future will join the families of the disease Methodist teach skills, willingness to facilitate the promotion of patient follow-up treatment.

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Integrating local culture to support a self-operated dispensary: the second year experience of Pharmacist

#### LING-CHUN LIAO, TZU-HSUAN LIANG, CHIA-FANG WU, WEN-CHIEN YANG, HSIN-MING LIU, KUEN-CHEH YANG

#### Introduction

With a goal of improving health inequality, our hospital has begun to provide medical service in Ladakh, division of Jammu and Kashmir State in northern India since 2012. An empowerment model was introduced by building a self-operated dispensary for local schools in 2013. The pharmacist jointed the multi-disciplinary team in 2014 and started the first investigation

for the local drug resources. In 2015, we continued the previous investigation and extended the service from schools to local community.

#### Purpose/Methods

We asked three questions: How do people think about and deal with their health issue? Where do they get medical resources? What kind of problems do local health-worker encounter in managing a dispensary? We collected the results from the health examination, and records from the dispensary. In addition to investigate local pharmacy, we also visited the community health center and Tibetan medicine clinics. With understanding their most common needs, we designed the workshop for local healthworkers to operate their dispensary.

#### Results

After visiting pharmacies and Tibetan clinics, we completed the local Drug Resource Map and learned their common health problems. We found some health-workers having difficulties to manage complex drugs, which were donated from different philanthropies. The pharmacist trained them how to administer the drugs for the dispensary. In order to empower them to manage the self-operated dispensary, we also assisted our team to design the lectures of common drugs, such as drug dosage, adverse effects and frequency.

#### **Conclusions**

From the experiences of working with other Medical professional, Pharmacist stands out as a role of leading local staffs to fulfill the better administer their medical resources. Most importantly, we instructed them how to manage a dispensary based on the local culture and resources. The dispensary fulfills our empowerment model to make healthworkers play important roles for their communities. The future plan will focus on follow-up, monitor and continuing education to make the self-operated dispensary eternally.

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### Session M1.7: (HPH) Standards and guidelines to promote health

Following research of advanced HPH quality plan and analysis

#### SHIEH Ying-Hua, LIAO Wen-Chia, LIU I, CHANG Jen-Hung, CHAN Hsiao-Wen

#### Introduction

Wan Fang Hospital had participated in 2014-2015 WHO-HPH advanced quality plan, completed the recognition process with overall fulfillment of 100%, and had been awarded of gold level by WHO. After a series of health promotion and education lectures, a follow up research was done for one year during July 2014 to July 2015, regarding the understanding of health promotion and actual health promotion behavior of staff and patients in Wan Fang Hospital.

#### Purpose/Methods

A total of 304 patients were collected from out-patient-department and nursing home. Health promotion education and personal health promotion prescription were given by the family medicine doctor, and a total of 236 participants had received health promotion action. Questionnaires were collected from 52 staff of department of family medicine and health examination center. We held health promotion activities and lectures. Health promotion clubs of smoke quitting and exercise were also established. All participants had completed pre- questionnaires and post- questionnaires.

#### Results

Analysis of patient questionnaires showed a positive correlation between exercise habits, weight control, and smoke quitting with the time and frequency of health promotion education. Patients who received 3 education sessions would increase 14% of smoking cessation rate compared with patients who received one. Satisfactions toward hospital were over 90 % in patients who received education. Smoking rate of staff was decreased to below 5%. Staff with exercise habit increase 36.5% and satisfaction toward work place increased 18%. The results of HPH advanced quality plan research to be presented at conference.

#### Conclusions

This research showed the persistent health promotion education and lectures toward patients and staff could improve health status. The more time we spend on discussing and educating to our patient, the healthier they get. Furthermore, after the health promotion action, the smoking rate of our staff decreased to 1/4 of previous rate, and 90% of staff showed satisfaction toward work place, which was a significant improvement. It represented that the health promotion actions are worth to keep moving on.

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### **Evaluation of Health Promoting Hospital in Thailand Project**

#### SUPAGRETH Buang-Oon, WANOTAYAROJ Nipattra, TUCHANANUSORN Sasiporn

#### Introduction

Health promotion Hospital plan in Thailand has been officially developed in 1999 . The goal was to integrate health promotion principles and activities into the routine hospital function. In 2001 Department of Health had developed HPH standards as a tool for hospitals to improve their operation and assess for accreditation. And by 2013 Health Promoting Hospital Project has bought the policy into practice with the coverage of 98% or 833 hospitals under Ministry of Public Health, applied for accreditation as a health promotion hospital.

#### Purpose/Methods

The objective of this research was to evaluate the health promoting hospital in Thailand by using CIPP model theory. The sample was 63 hospitals which were certified for Health Promoting Hospital(reaccreditation) from Department of Health during the year 2011- 2013. Data was collected by questionnaire.

The sample were 1,701  $\,$  from 4 targets : patient , staff , director of the organization and  $\,$  community.

#### Results

It was found that hypertension was the most disease in OPD and diarrhea in IPD. Policies and planning of health promoting hospital followed the standard. The hospitals had high budget allocated for health promoting materials. Executive and practical personnel got development for health promotion competency. There were management information system for health behavior and health status. The health promotion committee covered all aspects of the standard and monitored quality control. Department of Health and Regional Health Promoting Center supervised the health promoting process. Most hospitals had fitness and exercise equipment. Healthy food was available in the cafeteria and 100% smoke-free and alcohol free in hospital. Health promoting program for hospital staff was implemented for healthy, risk and sick groups. Overall hospital staff, patients and people in community received health promotion services. They get health promotion knowledge at high level and also presented high satisfaction. Health behavior was moderate level but BMI was above normal range.

#### **Conclusions**

From this research, Department of Health should establish a policy for health promoting hospital that get accreditation to show improvement of important health behavior and health status of target population at good level. The hospitals should develop health information system especially for health behavior and health status. Setting program that relatives and family participated in taking care patients and also encouraged local governments to participate in health promoting program implementation in the community in order to be strong and sustain partnership.

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Evaluating Medical Service Quality Based on SERVQUAL Model and Derived Importance-Performance Analysis Method

#### SHIEH Jiunn-I, WU Hsin-Hung, HUANG Kuan-Kai

#### Introduction

Since National Health Insurance program formally went into effect in Taiwan, providers of medical services have recently awakened to consumer challenges, competition, and the realities of marketing. Patient satisfaction is regarded as an important quality indicator but also increased competition in the profession. For succeeding in an increasingly competitive environment, medical providers should make continuous quality improvement of medical services to increase patient satisfaction. Achieving higher patient satisfaction can lead to attract more patients and referrals that enhance long-term success.

#### Purpose/Methods

The purpose was to evaluate medical service quality of Xianxi Township health promotion service plan of a regional hospital. The questionnaire based on SERVQUAL model with twenty one questions was analyzed by derived importance-performance analysis method. The survey was taken on August 1-15, 2014 with 200 patients or their families at Health Promotion Service Center, Elderly Group, or Activity Center and its related organizations. A total of 171 valid questionnaires were received, and the valid return rate was 85.5%.

#### Results

The results show that four items were identified by derived importance-performance analysis as the major strengths of Xianxi Township health promotion service plan, including "Trying to help people solve problems", "Always polite service staff", "Good communication skills" and "To cooperate with my improvement when I encounter dissatisfaction". One item classified as a major weakness, was "Providing immediate service".

#### Conclusions

This case study uses derived importance-performance analysis to evaluate the medical service quality of Xianxi Township health promotion service plan. To maintain the competitive advantage, the management team needs to concentrate on these four major strengths. On the other hand, if the management team is to remove customer dissatisfaction immediately, one major weakness should be placed in the highest priority for continuous improvement. In doing so, the management team can significantly improve patients' acquisition and retention.

#### **Comments**

Importance-performance analysis is a good tool to identify strengths and weaknesses. The major disadvantage of the traditional importance-performance analysis is that the questionnaire completely uses self-stated evaluations to assess the importance that respondents often find it difficult to differentiate and may be influenced by social norms or political correctness. This study proposes a "derived importance-performance analysis" based on total sensitivity index evaluating approach, by using a less direct way to reflect the respondents' view from the traditional survey more reliably.

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Strategies for Enhancing Hand Hygiene: an Example of Hemodialysis Center

#### SHEN Yi- Hui, CHEN Yi- Ling, HSIEH Chia-Chi

#### Introduction

Health care-associated infections (HAI) are a vital issue in hospitals and challenges for patient safety worldwide. The hemodialysis center is a new and unique unit in our hospital. The compliance and accuracy of hand hygiene for health care personnel in our hemodialysis center (73.33% and 54.5%) were lower than the target value of the entire hospital of 90%. For

avoiding the incidence of HAI in the hemodialysis center, a task force team was established for improvements.

#### Purpose/Methods

We set up improvement strategies according to WHO Guidelines on Hand Hygiene in Health Care, including: 1. identify the moments for hand hygiene for hemodialysis; 2. a reminder of "My 5 Moments for Hand Hygiene" placed at bed end; 3. set up hand hygiene moments for eliminating alarm of hemodialysis device; 4.on-the-job training with tests; 5. Videotaping Hand Hygiene Training Films; 6. Auditing and reviewing; and 7. compiling training of hand hygiene skills into the learning passport of new faculty.

#### Results

An internal audition performed by seeded infection control staff during rush hours from 1 to 31 January 2015 showed the compliance and accuracy of hand hygiene increased from 75-100% and 80-100%, respectively. On the other hand, an external audition by Infection Control Unit outside rush hours from 1 February to 31 March 2015 showed the compliance and accuracy improved from 73.33-100% and 54.5-100%, respectively. A follow-up audition during 1-31 October 2015 revealed the compliance of hand hygiene remained 100%.

#### Conclusions

It is a simple but tough task to implement hand hygiene thoroughly. Clean care is safer care. Hand hygiene is the first mission and the most effective as well as the simplest way to safer care. In addition, the health care staff should treat patients like family and implement hand hygiene completely when caring catheters in hemodialysis center. The infections incurred by ignorance should be minimized. Furthermore, infection related deaths should be reduced.

#### Comments

Patients in hemodialysis center usually have multiple chronic diseases. There is a higher chance of cross contamination induced by medical staff. Health care staff should make themselves familiar with hand hygiene practice to avoid the incidence of complications and to eliminate the spread of pathogenic bacteria in hospital. It is expected to promote the 'Strategies for Enhancing Hand Hygiene for Hemodialysis Center' to other hospitals to achieve a triple-win outcome among hospital, patient, and community.

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# Session M1.8: Creating health promoting healthcare delivery systems through innovative partnerships in policy

The Fatalism of Marketization of the Medical Environment: From the

#### Approach of Role Expectation of Nurse Practitioner

#### **HUNG Tsui-Lian, CHI Wei-hsian**

#### Introduction

The management of healthcare providers has become more marketized in Taiwan. The NPs are created in the medical marketization for assisting the attending doctors as well as for reducing medical costs and personnel expense. However, this leads to several problems including insufficient training programs and lack of specialized guidelines. The professional identity is not stably established yet. This causes some risks on providing correct medical treatment for the patients.

#### Purpose/Methods

This qualitative study was undertaken in four teaching hospitals of southern Taiwan. Semi-structured, in-depth interviews were conducted with seven nurse practitioners (NPs). Based on the interview records, we coded and analyzed the verbatim drafts to develop themes to find out the problems associated with the role definition and the quality of NPs.

#### Results

1. Due to insufficient training and lack of specialized guidelines, NPs are not able to meet the standard of competence required for clinical practice. 2. Although the formal regulation states that NPs serve as an assistant role of the physicians, NPs are assumed to take responsibilities as doctors. NPs therefore suffer stress and this may cause risk patient safety. 3. The ambiguous role definition of NPs has resulted in increasing work loading and difficulties in their cooperation with doctors.

#### Conclusions

Lack of sufficient training program has caused big stress for nurse practitioners (NPs) while rotating from one apartment to one other. Under the governance of medicalization, NPs' role ambiguity has resulted not only in unreasonable task loading, but may also danger the quality of medical treatment of the patients.

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Decentralized acute healthcare services- healthcare service provision of the same or better quality as hospital services?

#### LEONARDSEN Ann-Chatrin, BJELKE Börje

#### Introduction

Demographic changes in the Western world implies a need for better organized and more efficient healthcare services . The Norwegian Collaboration Reform (CR) was launched January 1th 2012. One of the goals of the reform is to increase the proportion of patients receiving access to healthcare services within their local community. The planning and implementation of Municipality Acute Wards (MAWs), a 24 hour innovative acute

healthcare service in the municipalities, was one of the measures to meet these objectives. MAWs were established as a collaboration between the hospital and the municipalities, based on local needs and regulated in local agreements. Østfold county is the first of the Norwegian counties to establish such services in five MAWS, offering decentralized acute healthcare services to 300 000 inhabitants.

#### Purpose/Methods

Østfold Hospital Trust, in collaboration with 17 municipalities in the county, as well as Østfold University College has planned a randomized controlled trial called "Treatment Quality in MAWs". The primary aim is to evaluate whether the MAWs offer healthcare services of the same or even better quality than the hospital. Primary outcome is 30 days mortality. Secondary outcomes are e.g. 30 days mortality, patient reported outcomes (PROMS, e.g. EQ5-D), length of stay (in days) and expences/24 hour in MAWs vs hospital.

#### **Conclusions**

Studies have shown that patients experience being treated nearby their homes, in a small and quiet environment, a relief. Negative concequences related to treatment decentralized has not been found, but there is a lack of significant results. Research on innovative decentralized acute healthcare services is scarce. This trial will contribute to important knowledge about the quality of such services, both regarding the medical treatment, but also regarding patient reported outcomes.

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#### Session M1.9: Environmentfriendly healthcare

#### Noise Reduction Program for Environment-Friendly Ward

#### LEE Cheng-Yung, HO Hsu-Chueh

#### Introduction

Noise is defined as unpleasant or unwanted sounds exerting a great impact on both work and sleep. In the daytime, noise deteriorates efficiency and causes anxiety and sleep disturbance at night. It brings physiological problems, like blood pressure, immune function, arrhythmia, and changes in respiration. Furthermore, impaired sleep quality increases fatigue and possibly leads to hypertension and ischemia. To create a friendly environment, we conducted a study to investigate the sources of noise and then we corrected them.

#### Purpose/Methods

One of surgery stations was selected. Noises were recorded hourly at two locations: the nearest and the farthest wards to the central nursing station. At the beginning of study, we recorded noise for 10 days. Meanwhile, the noise events were observed. Later, we employed strategies to reduce noise. Afterwards, we recorded noises again for another 10 days. Finally, we compared the noise levels before and after redesign.

#### Results

Initially, the average noise levels were 68.9dB during daytime and 62dB at night. Of all noises, four major noises were identified: nursing handovers, transport, printers, and door opening and closing. Then we redesigned nursing handovers. The mechanics increased the maintain frequency for transport. Dotmatrix printers were replaced with laser printers. We used cushion stickers for door opening and closing. After redesign, the average noise levels were lowered to 61dB during daytime and 51.6dB at night.

#### Conclusions

Our strategies for major noises were effectively lowered by more than 10%. That is, to create a friendly environment by reducing noise, we do not only facilitate work efficiency for doctors and nurses, but also improve sleep quality for patients. As a health promotion hospital, the improved efficiency probably reduce error and reinforce medical quality. For our patients, the improved sleep quality would remove the trigger to anxiety and annoyance and then have positive feedback in recovery and health promotion.

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### Focus on medical treatment experience, harmonize doctorpatient relationship

### ZHANG Xiaobo, XI Xiaolei, FU LIIi, ZHANG Zhihao, LIU Yumei, XU Hong

#### Introduction

With transformation of medical model and the development of the socialist market economy, we got the further reform of national medical health system, and enhance the requirement of medical service. "People-oriented" medical service has been widely accepted by us all of the country. After learned the advanced experience, we combined with the social conditions, we launched the project of "Focus on Medical Treatment Experience in Children" in Children's Hospital of Fudan University on March 24, 2013.

#### Purpose/Methods

We organized the project team, the medical social workers as the core team, with senior management personnels, the medical workers, volunteers, and consultants as the supporter. The team determined the steps of the project in order to find the deeper connotation and significance of it. We arranged the schedule of the project and implemented ten initiatives.

#### Results

We promoted the mutual communication, harmonized doctorpatient relationship, and improved the patient's treatment experience. We invited patients and the public to participate their diagnose and treatment.

#### Conclusions

In the process of improving medical experience of patients and their parents, we promoted service quality and security. We enhanced the doctors' skill which is an important part of hospital image building. We obtained the concept of "people-oriented".

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## Session M1.10: Staff health promotion through lifestyle interventions

Observation on how a government organized obesity prevention plan can affect hospital and staff participation in prevention of workplace obesity from the perspective of medical personnel promoting obesity prevention

#### SU Pei-Hung, CHEN Hui-Chen, CHENG Yi-Fang, CHANG Chia-Fang, HSU Chia-Wen, CHEN Ling-Sui

#### Introduction

Many studies have shown that an organized obesity prevention program is more strategized to attract people to participate and more efficient in allowing obese members to successfully become skinnier. As a result, using public authority, the government has implemented a set of policies to influence each counties' public health bureau and its' medical hospitals to create a culture and environment of obesity prevention.

#### Purpose/Methods

In the past, the hospital didn't have the plan to promote staffs getting health. With the government publically announcing that obesity prevention is a national issue and asked hospitals to cooperate. As a result, the Superintendent of the hospital has organized the Department of Occupational Safety, and other related units to be part of the staff's Health Promotion Committee. The committee strives to encourage staff members to lose weight, plan annual obesity prevention activities, and create a healthy workplace environment.

#### Results

Four years after the implementation of the program 1.The percentage of staffs recognizes the health promotion strategy of the hospital is from 52% to 99%. 2.Each year, around 600 staffs participate in the weight loss activity. Around 81% of participants successfully lose weight. The percentage of staffs with BMI>24, has decreased from 60.3% to 53.2%. From those percentages, 213 people participate each year. From 2014 to 2015, a total of 1483 kilograms were lost.

#### Conclusions

1. After completing the government and hospital's obesity prevention program, with the cooperation of the hospital units, numerous staffs experienced and identify with the importance of obesity prevention. 2. Through the participation of each units' manager and staffs, there is a gradual creation of a healthy workplace culture.

#### Comments

A top-down policy to promote and organize resources can increase the motivation and ability of hospital and staffs to encourage work place health. Continuation of the promotion will allow staffs to be familiar with health issues, resulting in a healthy workplace culture.

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## Using fitness program to enhance physical activity among obese hospital employees

#### LO Yu-Tai, CHEN Li-O, YANG Yi-Hua, LIOU Wen-Chin

#### Introduction

Regular physical activity protects against chronic diseases associated with obesity and workplace is an important setting for the enhancement of employees' physical activity. In St. Joseph Hospital, obesity has been the leading health problem among employees for years; however, the prevalence of sedentary lifestyle remains high while sports clubs are lacking. After the implementation of a 16 weeks fitness program, we successfully enhanced physical activity among 18.4% obese employees and encouraged the establishment of a new weekly exercise club.

#### **Purpose/Methods**

The main purpose is to enhance physical activity for obese employees. Invitations were sent to 114 employees whose BMI > =27 and introduced the sixteen weeks, hospital sponsored, workplace fitness program, which includes a lecture about the importance of physical activity, a personal VIP health information booklet, and a weekly 60 minutes exercise group coached by professional trainers. All participants can apply official leave to join the program and their body weight would be recorded in the booklet weekly.

#### Results

Among the 114 employees, twenty-one (18.4%) joined the fitness program (average BMI: 29.9) from May 13th to September 3rd, 2015. After the program, eight participants (38.1%) lost 21.3 kg totally while no participants had body weight increase. All of them responded positively on enhancing physical activity and are willing to keep on exercising regularly. Fourteen participants (66.67%) wished to continue the weekly exercise group; therefore, they set up a new exercise club on their own which soon started in October. 2015.

#### Conclusions

By combining supportive environment and creative strategies, we found that employees were able to develop personal skills

from understanding the importance of exercise, being more aware of the risk of sedentary lifestyle, to actively changing their behavior. This program has successfully helped obese employees experience the benefits of regular exercise and the group exercise event not only creates motivation and influence on the idea of healthy living, but also draws employees closer and eventually promotes the new exercise club.

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### User-driven weight loss project in workplace

#### LIU Hsiu-Chin

#### Introduction

Obesity is a chronic health problem worldwide. While most weight-loss programs include knowledge and skills, this project used behavior management to enhance the effects of weight-loss. Three approaches were employed; 1. Individual groups decided their own weight-loss rules; 2. A KPI-based stair-climbing exercise was implemented to motivate members; and, 3. Performance rankings were published to enhance competitiveness. A total of 146 workers participated for 12 weeks, registering an average weight loss of 5.3 kilograms.

#### Purpose/Methods

Behavior management was effectively used to motivate overweight workers to efficiently lose weight. 1. User-driven: 146 workers, divided into 28 groups, created their unique weight-loss rules. Leaders monitored team performance throughout the project's 12-week period. 2. Simple and effective exercise: A KPI-based stair-climbing exercise was introduced to motivate members and help leaders manage their teams. 3. Healthy competition: The top 20 performing members were published weekly in an e-paper. 4. Knowledge: 2 diet lectures supported by e-learning were provided.

#### Results

To encourage a health-conscious workplace culture, a stair-climbing card-based exercise activity was conducted. In addition to weight loss, this activity also contributed to carbon reduction. Upon project completion, an average weight loss of 5.3 Kilograms was achieved. Effects were particularly significant for Triglycerides (average decrease 24.66), GPT (average decrease 10.15), uric acid (average decrease 0.9), systolic blood pressure (SBP; average decrease 3.88) and diastolic blood pressure (DBP; average decrease 2.9).

#### Conclusions

The effects of the user-driven weight-loss project intervention reduced manpower costs and health promotion costs by building a health-conscious environment. Moreover, this study demonstrated that this new weight-loss model is effective for improving self-image while reducing weight, triglycerides, GPT, uric acid, SBP and DBP. The successful experience and knowledge gained from this intervention project suggest that such programs should be implemented as an integral part of a company's corporate culture.

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#### **Water Your Trees**

#### ANG Yen, CH'NG Keat Hui, CHONG Ellena, KRANCARI Molly, LOH Hwa Ling, CHUN Teik Lan, SEE Wee Dee

#### Introduction

Water is essential to life and good health. Yet most people do not consume adequate amount of water every day for good health. Furthermore, very few health promotion programs target on the importance of water intake. In Penang Adventist Hospital, only about 60% of its employees drank adequate amount of water daily for good health. Creative health promotion ideas are needed to create awareness about this much neglected but important nutrient. The purpose of this study is to employ innovative multimedia ideas to encourage water consumption among employees of a hospital. Our goal was to have each employee drink ≥8 glasses (2 litres) of water daily.

#### Purpose/Methods

A free online self-directed tracking program was made available to all staff. A tree would grow or wither according to the amount of water the tracker drank each day. Based on the tracker's own input, a tree would grow for every increment of 1000ml of water consumption. Every morning a withered tree would appear on the screen to remind people to drink water throughout the day. A full grown tree with fruits would be progressively shown in every 2 weeks interval when minimum amount of water intake was met. A giant tree- with- leaves sticker was pasted on the wall in the hospital's cafeteria, staff who had their tree grow on their on-line application would get to hang a "fruit" on the tree with their name on it.

#### Results

About 29% (n=324) of all staff, from 48 departments (82% of all departments) registered for the online tracking. Number of people consuming ≥ 2 litres of water was statistically increased from baseline 61.0% to 72.6% (p<0.001). Among the trackers, about 70% said the campaign encouraged them to drink more water. About 27% of the participates rated the online tracking as "excellent" or "very good"; 46.6% rated as "Good", while 21.8% rated as fair, ad 2.6% as poor.

#### Conclusions

The self directed online water tracking exercise was independent—staff can do it anytime anywhere. The interactive tree growing exercise was a novel idea, so it got people's attention; and the reward is based on trust. The combination makes the entire experience empowering and enjoyable. However, the campaign faced one major limitation due to its computer -based nature: it might only appeal to employees who have hospital email account, are literate and computer savvy.

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### Session M2.1: From prenatal to adolescent health

The Adolescent Health Promotion analysis of Physician Liaison Service in Taipei

### SHIEH Ying-Hua, CHU Bo-Yu, CHAN Hsiao-Wen

#### Introduction

Most people has been through multidimensional transition during their adolescent periods, and many physiological and psychological pressures were also noted. In Taiwan, survey has revealed 35.1% of adolescents had adopted inappropriate behaviors such as tobacco and drug addiction due to this transitional pressure. Over the past years, Wan Fang Hospital's Family Medicine Department has been active in health promotion and education among students especially in the areas of adolescents' physiological and psychological health.

#### Purpose/Methods

The Family Medicine department in Wan Fang Hospital has undertaken "Adolescent Health Promotion Project" every year since 2011. The department has set up adolescent clinic, and "Physician Liaison Service" at three schools in new Taipei city. In 2015, nine adolescents' health promotion seminars including tobacco and drug addiction prevention, gender education and weight management were conducted. Lessons were held in 9 schools, with smoking cessation success rate followed. Furthermore, a short film on "Adolescent smoking and drug cessation" were also distributed among schools.

#### Results

In 2015, a total of 96 out-patient department session with adolescents visited our adolescent clinic with 93 patients visited in 5 months period during June 2015 to October 2015. Majority of the concerns were about physiological changes (body image, menstrual disorder, depression, anxiety, and sexual problems) followed by interpersonal relationship and emotional issues and substance abuse/addiction (tobacco, alcohol). Also, 47 adolescents used "Physician Liaison Service" due to similar concerns/issues. Smoking cessation and drug addiction lessons conducted at 9 schools, with total of 3360 students involved.

#### Conclusions

The physical and psychological transitions making adolescents not only susceptible to social and peer influence, but has also generated many behavioral and emotional issues that should be brought attention to all the parents, teachers and medical professions. In addition, adolescents also have low smoking and drug cessation success rate. Therefore, greater efforts and cooperations are needed between schools and hospitals in providing information about harmful effects of tobacco and drugs. Resources on better psychosocial and behavioral support should also be provided.

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## Suicide prevention and mental fitness app for adolescents - a new approach to mental health

### KACIC Viktor Enrico, ZIMMERMANN Frank

#### Introduction

Suicide is the second most common reason for death among adolescents in Germany. Although suicidal adolescents suffer from enormous emotional pain, the availment of professional mental health care often is an obstacle to their needs of autonomy. We searched for therapeutic help that doesn't undermine adolescent needs and concurrently is ubiquitous in their world. The development of a suicide prevention and mental fitness app in smartphones can alleviate emotional pain contributing to self help and facilitating psychiatric support if necessary.

#### Purpose/Methods

The goals are information, prevention and coping suicidal crisis. A traffic light system is used: red stands for help in crisis, offering a therapeutic navigation system in text and voice to find a way out of crises. Furthermore red offers an aroundme service and emergency telephone numbers. The yellow button supplies the opportunity for self evaluation of mental fitness. Pressing the green button provides general and - via linked websites - additional online information.

#### Results

The study is at this stage in its experimental phase. A peer group review is implemented in every level of the app. A user evaluation is implied in the app assessing the helpfulness and frequency of application. Despite those means of evaluation we currently lack the statistic evidence of a significant benefit since the app did not yet go into operation. The national suicide prevention program has put the realization of our app in their agenda for 2016.

#### Conclusions

The significant increase of emotional distress in adolescents in Germany leads to a dramatic growth of inpatient numbers in child- and adolescent psychiatric hospitals, which in turn gives rise to the construction of new psychiatric secure units. It is necessary to establish new therapeutic ways of encountering this phenomenon. The development of a suicide prevention app can contribute to an improvement of self efficacy of the adolescents and help to reduce inpatient numbers.

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### Session M2.2: Promoting health in the community

The Modification of a Self-Operated Healthcare System in an Elementary School in Ladakh region, India

YANG Wen-Chien, LIU Hsin-Ming, LIAO Ling-Chun, YANG Kuen-Cheh, WU Chia-Fang, CHIH An-Hsuan, WU Tzu-Ling, HUANG Ssu-Yun, TAN BOON FATT, LEE Kuan-Yeh

#### Introduction

In 2012 NTUH, Hsin-Chu branch started a partnership with Jamyang elementary school in Ladakh, a region in northern India, and initiated a self-operated healthcare dispensary project. Since then, our hospital has dispatched an oversea medical service team each year to Ladakh region. After our team's 3 years effort, the school health workers are able to process simple medical treatment for mildly-ill children. This year from July to October, 2015, we targeted at improving the delivery of the dispensary healthcare service.

#### Purpose/Methods

First, our team evaluated the operating condition of the HC system in the school. By analyzing the medical records of the students, we understood their common health problems and developed the suitable health-education programs. Secondly, we simplified the medical recording system of the dispensary and improved the accuracy of documentation to reveal the true condition of the students' health. Lastly, we replaced expired medications in the dispensary with medicine mainly from the local for increasing an accessibility of medication.

#### Results

Wound cut and abrasion were the most common medical problem for the students. After assessing the school-health workers' skills, we launched serial lessons for them, and trained the senior students as assistants. Furthermore, by labeling the medication in the dispensary with graphic illustration, the comprehension of medicine function has been improved. About the effectiveness of simplification of medical recording system and replacement with the local drugs, due to the time restriction, the outcome will be evaluated in the coming years.

#### Conclusions

After years of input, we realized the importance of identifying the exact local needs. We believe that structuring a model, based on the local stakeholders' needs, is a effective way to sustain the self-operated healthcare system in the school. Currently, we have helped to improve the basic healthcare ability of the schoolhealth workers. In the following years we plan to bring more healthcare education programs for senior students and expend our successful model to the other schools.

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#### A Mobile Application in Primary Community Care Networks: A Case Study of Taiwan

#### LIN Wen-Yuan, LIN Chih-Hsueh, CHANG Li-Ya, LIU Chiu-Shong, LIN Cheng-Chieh, CHO Der-Yang

#### Introduction

The Primary Community Care Networks (PCCNs) Demonstration Project, the product of primary care health reform in Taiwan on March 2003, is still in progress. The purpose of PCCNs project is to improve the relationship of hospitals and primary care clinics and to promote two-way referrals for primary care providers playing the role as gatekeepers. This study focuses on how to integrate mobile application technology in PCCNs and to evaluate its effectiveness.

#### Purpose/Methods

28 PCCNs, consisting of 191 clinics and 226 physicians, were supported for tertiary care by a medical center in middle Taiwan. A mobile application (e-CMUH) was developed by the medical center in 2014 and was implemented in 10 PCCNs to enhance the quality of services. e-CMUH is designed as a patient-centered cloud-based platform for managing and sharing healthcare data. The platform is accessible through a typical web browser on mobile phones by patients, physicians, and managers.

#### Results

After implementation of e-CMUH in PCCNs for 6 months, a total of 25 clinics and 1550 members of PCCNs had used e-CMUH. The average number of member interaction with clinic and physician using clinic interaction with hospital via e-CMUH was 9.7 times per member and 11.9 times per month, respectively. Furthermore, the screening rate increased by 21% for general health, 7.4% for cervical cancer, and 21% for colorectal cancer. The satisfaction score of e-CMUH in PCCNs was 85%.

#### Conclusions

The development of mobile application improves accessibility of information for patients and physicians, and to promote the two-way referrals between clinic and hospital. Using the integration of health information technology into primary care can improve quality of medical service.

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## Health Marketing in Community: Seeing the opportunity of health promotion at night

#### LIAO Hui-Yen, LU Hung-Yi

#### Introduction

There has been some evidence of increased concern with support for exploring and attempting to address the importance

of health marketing on community residents. Awareness of the need to understand community dynamics and socio-cultural factors and their impact on health promotion has grown dramatically, and the appreciation of the need for community-driven research has increased as well.

#### Purpose/Methods

A participatory research was conducted from 2011 to 2014 in the communities at Chiayi County to investigate the influence of social marketing strategies on health promotion among community residents. There are two phases in this study. The first phase attempts to conduct community-based health promotion interventions from the perspective of cultural sensitivity. In planning and executing health communication campaigns, programs, or educational materials, certain operational decisions must be made. Health promotion practitioners therefore step in 16 communities in Chiayi county and entertainment-based health communication strategies were employed in community by gathering residents in front of the temple. The intervention is named "Chatting in front of the Temple". As the "Chatting in front of the Temple activity starts, community residents sing the KTV, eat dinner and dance first and then sit before the temple learning knowledge related to health promotion. Health promotion practitioners in the activity also develop some interesting materials (such as animation, pictures and video) in order to pique residents' interests. Also, culture is widely accepted as a factor associated with health and behavior, its role yet in public health practice and research to date has been more rhetorical than applied. The second phase of this study is to conduct a qualitative study on community residents who have participated in the activity (Chatting in front of the Temple) in order to evaluate the effectiveness of communitybased health promotion interventions. Twenty participants were recruited to participate in the face-to-face interview.

#### Results

The finding of the study showed that participants inclined to know more about health promotion. They preferred easy-to-understand information and interpersonal communication channels were ranked as more appropriate venues for imparting information regarding health promotion. In particular, recent consensus in public health and health communication reflects increasing recognition of the important role of culture as a factor associated with health and health behaviors, as well as a potential means of enhancing the effectiveness of health communication programs and interventions. The findings of this study supports that culture sensitivity and easy-to-know message would have a significant influence on the effectiveness of such an intervention.

#### Conclusions

Understanding the role of culture as a factor in enhancing the effectiveness of health communication in community, health promotion practitioners of this study especially consider the importance of culture and describe how it may be applied in audience segmentation and introduce a model of health communication planning--McGuire's communication/persuasion model--as a framework for considering the ways in which culture may influence health communication effectiveness in community.

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## Reflection on Transnational Medical Services in Church Hospital with Head Lice Case Study

### CHOU Chien-Ju, HUANG Yu-Hui, CHUO Chih-Ting

#### Introduction

International health diplomacy resulted from the global public health threats since the 19th century. Due to economic and health disparities of poor countries, the health unequal and poor issue have been concerned. Humanitarian aid is medical, life material assistance provided for humanitarian purposes. When the religious based medical team provides the humanitarian aid, is the main purpose religious meaning or healthy thinking? Thus, through the head lice case study to reflect the essence of transnational medical services in church hospital.

#### Purpose/Methods

This article aims to explore and reflect on the connotation of transnational medical services for certain Southeast Asian countries from 2008 until 2015. Qualitative research method is adopted, participant observation to collect information through interviews and semi-structured questionnaire and the interviews were coded and analyzed , to explore the meaning and interpretation.

#### Results

1. Short-term medical mission might cause civilization bullying. Transplantation of medical technology might neglect consideration of the real situation behind. Through the case study of head lice prevention to learn that provide DELICE is not a solution, but pollute the environment. 2. The necessity of the medical communitization. From medical centered expanded to healthcare centered, and then promote the medical communitization. In 2009 we established the Health Stations in community that strengthens the health awareness of community residents.

#### Conclusions

Transnational medical services involve medical, health and public health. In the short-term medial mission strategy should avoid medical centered, should be combined with local culture knowledge to develop the medical plan appropriately. Such as choosing the shampoo with Pyrethrins ingredients to combat lice, not only for killing insects effectively, but also for reducing the damage of local environment. To practice medical evangelism have to further link the government, civil society and external resources to make the community better.

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### Session M2.3: Promoting health of the elderly

Towards holistic care through innovative partnership between HPH and Senior Citizen's Home

## CHEN Ching-Yuan, CHIEN Sou-Hsin, CHEN Su Shu, LAI Yi-Ling, CHAN Pin-I, CHUANG Shu-Ting

#### Introduction

Senior citizens account for 11.9% of Taiwan's population, and is defined as an "aged" society by the WHO. Since 1974, the local government established the Taichung RenAi Senior Citizen's home (SCH) to provide shelter, food and basic care for elders in need. SCH initiated a partnership with the hospital to develop integrative health plans, providing dignity and high-quality services.

#### Purpose/Methods

This study analyzed the needs of 224 residents and developed three types of collaboration. First, the hospital provided health consultation service to SCH at least once a week. Second, nurses at SCH used Mini Mental State Examination as for early detection and referral of dementia. Third, the hospital conducted physical fitness test and surveys on quality of life, health literacy and healthy lifestyle. Through tailored intervention, this collaboration aim to enhance elders' self-care skill.

#### Results

This partnership established a working group consisting of representatives from both sides with professional backgrounds in neurology, psychology, nursing and health services management. Neurologists held weekly health consultations and physical therapists joined to conduct rehabilitation needs assessment. SCH referred 44 suspected dementia cases for further examination and almost half (47.8%) ended up with a confirmed diagnosis. Chronic diseases of the residents include hypertension (47.7%), diabetes (20.5%) and heart disease (20.5%).

#### **Conclusions**

This shift in policy and organization structure created a supportive environment to enhance personal self-care skill. The direction of collaborating, sharing, helping, and togetherness resulted in a high quality and efficient care. This is definitely a win-win situation where health services can be integrated and delivered well. Findings from this study will guide us in developing further projects.

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## Exercise intervention programs to increase physical fitness in community-dwelling frail elderly

#### LO Chia-Lin, LI Hsiang-Lin, WENG Pei-Hsuan, HUANG Hui-Ting, LIN Hsin-Ying, CHEN Yi-Ching, CHIEN Pei-Li

#### Introduction

The sedentary lifestyle increases many chronic illnesses and accelerates functional decline in elderly. It is important to offer community-based exercise programs to help building exercise habits and prevent frailty. We designed an exercise intervention program tailored for elderly of different functional stages in Songshan District of Taipei City.

#### Purpose/Methods

This program was conducted weekly for 80 minutes each session over a nine-week period. For ambulatory elderly, the group exercise aimed at promoting physical fitness and fall prevention. It consisted of several exercises for muscle strengthening, improving postural balance and flexibility of extremities. For wheel-chair bound frail elderly, the program was held at parks to increase accessibility where the caregivers use to take elderly for sunbath. A professional coach designed personalized workout plan according to individual functional status or disability.

#### Results

Thirty-one ambulatory elderly participated in the group exercise. The mean age is 71.6 years with 83.8% females. After intervention, the subjects showed improvements in muscular endurance, upper-extremity flexibility and balance. They reported increased regular exercise habits after the program (50% vs. 83%). Another 27 wheel-chair bound elderly received personalized exercise instructions. Home exercise was also educated to their caregivers. We also trained volunteer workers to be future coaches so that they can keep holding group exercise in the park.

#### Conclusions

This community-centered exercise program improves physical fitness of elderly. Especially for disabled elderly who had few chances of receiving proper exercise instructions, this outreach program is easily accessible by taking place at the local park. The exercise plans were tailored for each individual's functional capacity. We also educated caregivers and volunteers so the exercise program can be sustainable. Long term effect on frailty prevention will be followed in the future.

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Hospital-based Case management -The example of Cardiovascular Disease

#### **MEI-JU CHEN**

#### Introduction

In this study, we intended to understand the results of ABI (Ankle-Brachial Index) and quality of life after case management among elderly patients.

#### Purpose/Methods

There were 120 participants in this study from March 2014 to March 2015. They were over the age of 60 patients with chronic cardiovascular prescription after the cardiologists' explanations in OPD room. According to the patients' condition, the cases Manager would send reminders newsletter (including blood alerts and health promotion reminders) to the participants a week before visiting doctor. After 6 months later, the ABI(Ankle-Braxhial Index) and quality of life scale (SF-12) would be conducted.

#### Results

We tried to establish the case management model for cardiovascular patient. After the case management model intervention, there were no significant differences in quality of life. But overall; with regard to mental health, the participants had slightly less scores than the international average, and with regard to physical health, the participants had slightly higher scores than the international average.

#### Conclusions

It was worthy of further analysis and consideration on these issues. In addition, the high correlation between the cardiovascular risk and atherosclerosis was same to the previous literatures. The ABI measurement is simple, safe and predictable tool in our study. This research shows that the mental health assessment and intervention programs for the cardiovascular patients were worth further exploration.

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Investigation of effectiveness of rehabilitation on stiffness of elbow joint by means of an innovative design "Magic Sleeve"

#### CHEN YINGLI, WU MENGPING, WU CHUNCHIEH, YEH KUOCHI

#### Introduction

Research indicates that muscle contraction phenomenon of immobilized elbow will appear as short as three days. Bedridden lead to muscle atrophy and elbow joint stiffness causing more efforts and time to care. Injury might occurred if caregiver unable to crab the forearm and give support to patient's elbow joint properly while working on a stiffed elbow joint on wheel chair. "Magic Sleeve" was designed to meet both of the above deficits so as to enhance quality of life of patient.

#### Purpose/Methods

Collection of 60 wheel chair bound elbow joint stiffness cases from home health care and LTC facilities from December 2014 to October 2015. Patients and their caregivers were instructed

clearly how to use the "Magic sleeve" to assist patients underwent rehabilitation of elbow joint. Their performance were monitored and corrected if there were any mistake monthly as well as the records of patient's elbow joint mobility. Two satisfactory surveys were performed at the beginning and end of investigation.

#### Results

Average improved degrees of mobility of elbow joints were from 93 to 124. Average improved degrees of mobility of elbow joint among home health care and LTC facilities were 101 to 138 and 97 to 131 respectively. Increased satisfaction percentage of the satisfactory survey range from 88.5 to 97.6, 89.2 to 98.7, 93.5 to 96.2, 92.8 to 99.3 in the fields of comfort, safety, quality of product and overall satisfaction respectively. "Magic sleeve" seems highly recognized by patients and caregivers

#### Conclusions

"Magic Sleeve" ensure the safety and give proper support the the rehabilitation of stiffed elbow joint on wheel chair. Rehabilitation nursing practice is mainly in helping patients to maintain and improve their living activities, the role of caregiver is an important influence to patient's quality of life. Caregiver needs substantial skill and willingness to ensure the quality of life of being cared. "Magic sleeve" can ensure improvement of both quality of life and working environment of patients and caregivers.

#### Comments

Some of the patients and caregivers even leave massage in the survey that the best part of the "Magic sleeve" change the relationship of patient and caregiver to two individuals working together towards a better quality of life. this gives huge encouragement to the working team to explore more widely to see if "magic sleeve" can work on other deformed part of body to enhance better quality of life.

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## Session M2.4: Promoting health through partnerships between professionals and clients

**Patient Blood Management in Italy** 

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#### Introduction

In line with Resolution WHA63.12 of 21/05/2010 from the WHO, 1 the Italian National Blood Centre (NBC) has promoted an initiative aimed at systematising innovative and more effective methods and instruments for ensuring appropriate organisational and clinical management of blood use, a ground-breaking multiprofessional, multidisciplinary and multimodal

project named Patient Blood Management (PBM) in Italy. PBM combines several objectives - improving the outcome of patients and lowering costs - based not on allogenic blood but on the patient's own haematological resources

#### Purpose/Methods

During 2013 the NBC activated a working-group of experts from the NBC and five Scientific Societies to identify, within the context of the PBM2 three "pillars", pharmacological and non-pharmacological strategies and techniques able to reduce the blood transfusion and the supporting scientific evidence. The working-group produced the Italian "Recommendations for the implementation of a PBM programme - Application to major elective orthopaedic surgery in adults").3 In 2014-2015 NBC launched the PBM pilot application in major elective orthopaedic surgery in adults.3

#### Results

The diagnostic-therapeutic pathway aims at applying PBM strategies also through the identification of dedicated nursing staff, 4 will circumvent or minimise the transfusion, guaranteeing a better outcome as a result of a set of personalised intercessions. Expected benefits of PBM Program: reduction by 10-95% of transfusions, up to 68% of mortality, by 16-33% of average LOS, up to 43% of readmission and reoperations, up to 41% of composite morbidity and up to 80% of infection rate, by 10-24% of costs.5

#### **Conclusions**

PBM is one of the ten "overlooked opportunities" that could enable healthcare systems to improve the quality of their performance considerably while reducing the cost of blood use by 10-20%, precisely through better management of this resource6. The PBM recommendations are a useful instrument for healthcare staff and management in public and private structures, supporting the provision of cost-effective therapeutic services, compliant with high standards of care, aimed at preventing avoidable transfusions and ensuring better outcomes for patients.

#### Comments

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## Overcoming communication barriers in the Hospitals of the Emilia Romagna Region

### MORGHEN Ilaria, ANTONIOLI Paola, MATARAZZO Teresa

#### Introduction

Programming Hospital services in terms of equity means being able of recognizing the heterogeneity of exposure to risk factors and of access to services. That involves taking a pragmatic approach to the mechanisms generating iniquity. It actually implies a shift from the traditional idea of equality according to which "all individuals should be treated equally," towards the belief that all individuals must be guaranteed the same opportunities to access,use, quality and appropriateness of services.

#### Purpose/Methods

Implement clinical activities related to the planning and evaluation of interventions on pre-surgery anesthetic consulting services together with a range of effective and sustainable techniques to be carried out across all sectors among patients users, caregivers, Managing Direction, Department Information System. Implementing a project of simultaneous video conference concerning pre-surgery anesthetic advice supported by a professional interpreter via web on computer or applications on tablets and smart phones, in the Italian Sign Language and in verbal foreign languages.

#### Results

The hearing-impaired person needing a medical examination can fill in a form downloaded from a link of the Hospital website.In this way the patient will be able to book a medical examination together with a LIS interpreter.The hearing-impaired patient will not have to worry about calling an interpreter and taking him to the hospital because that will be up to the hospital itself, with an Internet network service, ensuring a good connection and a better video quality.

#### **Conclusions**

The medical field definitely requires a professional interpreter service. In fact, The hearing-impaired or foreign people need a detailed comprehension of medical information. The patient must feel comfortable and free to ask any questions he may consider relevant. The service, which is flexible and professional, for public administrations who need to ensure a comprehensive dialogue with hearing-impaired or foreign people, has been specifically targeted for a front desk area.

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#### Reduction in Unscheduled Revisit to Emergency Department for Surgical Patients

#### CHEIN Jui-Teng, LEE Cheng-Yung

#### Introduction

Unscheduled revisits (URs) to the emergency department (ED) after discharge imply not only increased medical costs, but also potential quality issues. In order to improve medical quality and prevent ED misuse or overcrowding, we conducted a survey to identify reasons for URs to the ED and developed some strategies to reduce unscheduled revisits.

#### Purpose/Methods

We conducted a single-center observational study in a regional teaching hospital in Chiayi, Taiwan. Between July 2011 and October 2015, patients who had unscheduled revisits to the ED within 72 hours after being discharged from the surgical wards were included. During the study period, there were 50116 patients discharged from the surgical wards. A total of 915 patients made URs within 72 hours after discharge.

#### Results

According to chief complaints, 4 main reasons were identified: surgery-related (14.97%,n=137), care-related (30.60%,n=280), nursing and education-related (31.15%,n=285), and patient-related (23.28%,n=213). Based on this analysis of causes, surgeons were asked to review the pain medications before discharge. Family or care-givers were instructed on proper care. Designated phone numbers were provided for all patients for urgent conditions. Having all these measures implemented, the URs dropped to 2.03% in 2011, 2.07% in 2012, 1.76% in 2013, 1.65% in 2014, and 1.46 in 2015.

#### **Conclusions**

By analyzing the major reasons for URs to the ED and implementing the prevention programs, we have successfully reduced 72-hour unscheduled returns. Higher quality patient care and outcome was thus achieved without compromising patient safety.

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The patient in good and safe hands - empowerment of the patient in the surgery department through implementation of a Nurse Care Coordinator role, and the ISBAR model.

FILHABER aliza, CHITRIT simi, KOL yardena, SURGUCAL DIVISION head nurses



#### Introduction

Nurse Care Coordinator is a unique model developed in 2010 by the Department of Nursing of the Hospital Division of Clalit Health Services (CHS) and in 2014 was implemented in 14 CHS hospitals. The principle concept of the model focuses on 4 main anchors surrounding the patient during hospitalization: ensuring quality and safety of care, providing the patient with a sense of security, preventing suffering and risk, and continuity of care.

#### Purpose/Methods

To promote quality and patient safety, which in turn affects a patient's hospital experience. A training program was developed to instruct the nursing leadership in all the means to implement this approach, work procedures were adapted including tools and skills. The ISBAR model was introduced for communication between caregivers.

#### Results

In the Surgery Division of our hospital, the model was implemented in 9 departments and 150 registered nurses were trained. Observations were carried out on the implementation of the 4 anchors of the model, and the ISBAR model. The analysis of the observational data indicates that there was an increase in implementation of the model. In addition, interviews were conducted with patients about their personal feelings including questions based on the 4 anchors and the ISBAR model.

#### Conclusions

This is a unique and important model for empowering the patient and the nurse, contributing to a change in the nurse's professional approach and the empowerment of the patient. This model affects patient satisfaction during hospitalization and greatly contributes to their sense of security that they are in "good and safe hands".

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## Session M2.5: Innovative health promoting direct service provision

Utilizing Health+ Card and Health+
Mobile App in Health Behaviors
Management among Patients with
Hypertension in Far Eastern
Memorial Hospital, Taiwan

### LIN Tzu-Chun, LIN Wo-Chuan, LTD Far Eastone Telecommunications Co., Ltd., CHANG Shu-Wen, LIN Fang-Yue

#### Introduction

Hypertension is one of the most prevalent chronic diseases worldwide. Poorly controlled hypertension may result in serious morbidities and cardiovascular disease. One out of four people over the age of 20 years have been diagnosed with hypertension and more than 36 percent people don't even know they have

hypertension in Taiwan. Utilizing health management system and adopting mobile technology (Health+ card and app) are convenient for patients and healthcare providers to monitor and manage blood pressure.

#### Purpose/Methods

The Health+ blood pressure monitoring system designed by FarEasTone Telecommunications consists of a near field communication (Health+ card) and cloud-based electronic sphygmomanometer. The card application Group 1 was purchased by patients at the annual fee of NT\$200. Group 2 was sponsored by a foundation and free of charge to patients older than 60 years. Group 3 was sponsored by hospital and free of charge to patients discharged from the hospital. The patterns of Health+ card holders between 2014.08-2015.06 were analyzed.

#### Results

The number of Group 1, Group 2, and Group 3 were 1,415, 1,752, and 5,380 respectively. The average of age at Group 1, Group 2, and Group 3 were 55.8 yrs, 65.5 yrs, and 53.8 yrs respectively. The average application rate of Health+ card for applying at Group 1, Group 2, and Group 3 accounted for 55.3%, 24.9%, and 16.3% respectively.

#### **Conclusions**

Among the 8,547 Health+ card holders, 1,940 patients (23%) used Health+ card after registration. 56.7% of the users were older than 60 years of age and 31.4% of them used Health+ card for more than three times. Female had higher willingness to purchase the Health+ card (56%), or to apply for it through foundation sponsorship (61.2%).

#### Comments

Female gender and patients who purchased the Health+ card had higher willingness to use the card to monitor their blood pressure; therefore, Health+ card Health+ mobile app should be designed to meet the needs in this population. Utilizing technology to present blood pressure data directly to patients that allow them to communicate with healthcare providers has great potential to promote self-management and increase the efficacy in preventing disease deterioration.

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#### PiR - Patient safety in Real-time

#### ELKJAER Eva-Karin, GYBERG Anna, LILJEVALL Malin, NYMAN Christer, WALLERIUS Stefan

#### Introduction

The interest in systematic patient safety work has contributed to internationally targeted interventions in aim to improve patient safety. The impact of measures taken has been small and at the same time demands on quality in care increases due to trends on age distribution, in terms of the growing proportion of elderly, especially in Sweden. Results of hospital induced complications are today presented retrospectively and the patient's perspective is often left out.

#### Purpose/Methods

The purpose was to develop and test a person centered method for real-time audit. Every other week approximately five patients are included: 1. Avoidable complications are identified through structured journal reading. 2. Complementary person centered "triggers" are identified. 3. Patients are interviewed. 4. All data are analyzed and assessed by the audit team. 5. The same day the audit team, the health care team and the leaders discusses the most important findings. 6. The Health care team takes actions to meet the patient's needs.

#### Results

The effects of the intervention have not yet been evaluated. However, the aim is fulfilled within this project. Nine care units and 38 patients have been included for review. This means that patients hospitalized in our clinic now are systematically involved in the development of patient safety and quality in care. Furthermore, we have implemented a proactive model which makes it possible to prevent hospital induced complications before they occur.

#### **Conclusions**

\*Patients are being involved in systematic development of care.
\*It is now possible to prevent errors before they occur. \*Benefits a good patient safety culture. \*Benefits continuous learning. In short-term we hope that hospital induced complications decreases since the staff gets the opportunity to prevent errors immediately after receiving feed-back. In long-term we hope the patient safety culture will improve through the process of learning, which this method benefits through discussions between the health care team, the leaders and the audit team.

#### Comments

One challenge was to interview the patients since many suffered from cognitive impairment. We therefor plan to interview their relatives when possible. Until now we have only had one audit team. Because of the slow progression we therefor plan to create audit teams on each care unit so that they can review each other's care units. This way we hope to improve the patient safety culture even more.

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### Pain Control and Stress Management for Patients Undergoing Surgery

#### LEE Cheng-Yung, HO Hsu-Chueh

#### Introduction

Surgery brings patients psychological stress and physical pain, which not only increase medical costs but also threaten medical quality. There also exists potential medical negligence with or without legal problem. As a pain-free hospital, it is necessary to lower perceived stress preoperatively, ease anesthetic pain perioperatively, and relieve wound pain postoperatively. Since the ladder of pain management is well applied, we conduct a study to identify what factors induce operation related stress and pain so as to cope with them.

#### Purpose/Methods

Those undergoing spinal anesthesia were included. Prior to operations, the patients reported stress sources like unfriendly environment, unfamiliarity with how to and where to anesthetize, terrible experience in the past, etc. Later, the anesthesiologists paid visits to make acquaintance with patients prior to operation. During interactions, the doctors explained how to and where to anesthetize so as to lower the stress. We also conducted in-service workshop for sophisticating spinal injection skills. Finally, we compared the satisfactions before and after program.

#### Results

Before pain control program, there were 944 patients with 1053 spinal anesthetic injections (1.1 injections per patient). After improvement program, there were 193 patients with 198 injections (1.03 injections per patient). We also lower the patient's fear to have an injection from 17.39% to 3.55%. The unfamiliarity with anesthetic procedures was lowered from 18.49% to 4.25%. The overall satisfaction was promoted from 3.7 to 4.5 on the 5-point Likert scale.

#### Conclusions

A significant proportion of patients undergoing spinal anesthesia experienced less stress preoperatively and pain perioperatively, respectively. They reported satisfaction with both preoperative visits and perioperative process. In general, after visits and explanation, the patients could understand the anesthesia much more and the perceived stress could be soothed. After sharpening skill, we had less anesthetic injections for patients. When pain and stress are reduced effectively, better medical quality and decreased cost would be available.

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A Patient-Centered Approach to Assessing Health Outcomes using the Measure Yourself Medical Outcome Profile

### EICKHOFF CHRISTINE, ADAMS ALYSSA, HULL AMANDA, COURTNEY RENA

#### Introduction

The recent call to transform healthcare from a disease-centric to patient-centered model necessitates the use of patient-centered assessments to measure health outcomes and program efficacy. The Veteran's Affairs Medical Center (DC VAMC) Integrative Health and Wellness (IHW) Program offers patient-driven integrative health (CIH) services in which veterans choose the type and frequency of services in which they participate. Given this patient-centered approach, veterans complete the Measure Yourself Medical Outcome Profile (MYMOP-2) to assess change in self-identified health conditions.

#### Purpose/Methods

The MYMOP-2 is a tool that allows participants to identify their personal health issues and track associated progress. Upon

enrollment in the IHW Program, veterans complete a brief demographic survey and the MYMOP-2. This assessment tool measures their two most important health concerns, the severity of these health issues, general wellbeing, activity level, and medication use. This innovative approach provides clinicians and researchers the opportunity to measure patient-driven outcomes, program efficacy, and enrollee characteristics.

#### Results

Over 12 months, veterans completed the MYMOP-2 during their initial assessment, and baseline scores indicated poor perceived wellbeing (M=4.14, SD=1.25, range=1-6) prior to participation in services. Frequency analysis identified "pain" as the most common primary health concern (n=177) with "back pain" being the most frequent specific pain condition (n=109). At enrollment, 260 (67%) indicated medication use to address their primary health concern.

#### Conclusions

On the MYMOP-2, veterans reported poor perceived wellbeing, physical pain as their primary health concern, and medication use to address their pain. The structure of the IHW program and the MYMOP-2 tool offer a patient-centered, patient-driven, and innovative approach to both the delivery of health care as well as the measurement of health outcomes and service utilization.

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## Session M2.6: Promoting health of refugees, migrants and minorities

Health promotion for minorities -Free Health check-up and counseling for Nepalese in Japan

#### SHRESTHA SANTOSH, OONO GIICHIRO

#### Introduction

WHO defines health as a state of complete physical, mental and social well-being and not merely the absence of disease and infirmity. Life in a foreign land contributes a lot in the incompleteness of the state of health. Number of Nepalese in Japan is increasing year by year looking for better opportunities for job and education. And these Nepalese constitute a large percentage of the people, who are deprived of the high quality health care of Japan.

#### Purpose/Methods

To provide a free health check-up to the Nepalese in Japan, and help them maintain a healthy life in Japan. I made a detailed presentation of the program to the management board of my hospital and assured its help. I prepared pamphlets and distributed to the schools, restaurants and the factories where Nepalese are studying or working. The health check-up was planned on the Nepal's New Year day in a clinic of my hospital that has a very good access.

#### Results

There were 11 participants, from the northern Chiba. 5 of them were cooks, 4 house wives, 1 child and 1 student. Only 3 of them had health insurance. 5 of them had health problems which needed some sort of interventions. Those diagnosed as diabetes, hypertension, gastritis were referred to the hospital and are receiving medical treatments, whereas those with obesity and insomnia were given counseling that helped them to improve their life style which ultimately improved their problems.

#### **Conclusions**

The medical system in Japan is one of the best in the world, where the health insurance assures the same level of health care to all the citizens. Unfortunately, foreigners including Nepalese constitute a large percentage of the deprivers of this high quality medical service. In our study, as high as 45% of the participants had some sort of health problems. Although the number of the participants is very small, this, no doubt, reflects the problem that underlies in Japan.

#### Comments

This is a small step of health promotion for minorities in Japan. I have started it with the Nepalese, but this is not only the problem of Nepalese, but also the problem of the whole foreigners in Japan. Therefore, in the coming years I have decided to conduct health check-up and counseling for foreigners in Japan. And my dream is to extend it to countries in Asia and Africa in the future.

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## Iranian guideline for medico-legal management of female victims of sexual assault

#### LAMYIAN Minoor, SHAHALI Shadab, MOHAMMADI Eesa, KASHANIAN Maryam, ESLAMI Mohammad

#### Introduction

There are the wrong myths exist in Iran about sexual assault due to the dominant culture in our society. The lack of guideline on management of women who were victims of sexual assault in our country, show the necessity of design a guideline based on the native culture. The objective of this article is explaining the process of designing and evaluating a guideline for Iranian health care providers and health system to provide essential services for survivors of sexual violence.

#### Purpose/Methods

Nominal group technique was used to design the guideline. The field research data with the review of 29 existing guidelines in the world were given to 12 qualified health care professionals. After receiving comments, the meeting was held. After asking the question of the research, important ideas for designing the guideline are identified and the draft guideline was written. The Appraisal of Guidelines for Research and Evaluation II (AGREE) instrument was used to evaluate the quality of this guideline

#### Results

This research led to design of a guideline to provide clinical services for survivors of sexual violence which include services such as assessment, history taking, physical examination, collection legal evidence, diagnostic tests, prevention and treatment of sexually transmitted Infections, emergency contraception, Hymenoplasty, mental health services, referrals, follow-up and documentation of evidence. 100% of the experts who assess the guideline with agree II, were recommended the use of this guideline.

#### Conclusions

This guide line provides recommendations based on the victims and health care providers need and demands and this feature reflects the quality of this guideline

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## Session M2.7: Promoting tobacco cessation on the organizational, patient and community level

Smoke-free Hospital Service Quality Improvement Project

#### LO Hsien-Yi, FANG Miao-Ju, CHEN Ying-O, LIN Shu-Chao, WU Chun-Yi, TSAI Tsung-Lung, LIU Hsiu-Chen

#### Introduction

Smoking cessation is one of the important health-promoting treatments currently. However, in recent years, smoking for the health and social impact is very huge, so most of hospitals had great need of smoking cessation strategies and health education, unfortunately with limited manpower to find suitable method is the biggest problem of preventive medicine. Smoke-free hospital service quality improvement project has been launched by Health Promotion Administration, providing multiple services to help smokers who want to give up smoking habit.

#### Purpose/Methods

The purpose of this project was to enhance the quantity of smoking cessation service, to help smoking cessation successes. The method adopted smoke-free hospital service quality improvement project, it was including: 1. Strengthening smoking cessation healthcare personnel training. 2. Smoking cessation health education extends to ward. 3. Setting multiple innovation cessation health education station into the community. 4. Developing smoking cessation transferring system and incentives method for staff and the public. 5. Formulate incentives intervention for smoking cessation educator.

#### Results

The result revealed that 11 doctors has been trained after the smoking cessation training, basic level of smoking cessation health educator was 132, 71 got advanced level and 6 had high level. The ward health educator increased from 0 to 108. The

quantity of smoking cessation services increased from 237 person-times to 582 person-times, three-month success rate was 40 %, and six-month success rate was 39%, and won the first prize of smoking cessation contest of district hospital.

#### Conclusions

Through active professionals training in smoking cessation, set up more multi-point smoking cessation health education site in community, to develop the method of incentives for smoking free, these reveal significant effective outcome in the quantity and quality. All personnel become partnerships, providing innovative direct services, to create smoke-free hospitals and communities. Actively involved in smoking-free hospital project, we expect that the project result could provide a model for health care professionals, and help more smokers quit smoking more smoothly.

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### Find the power of PSA (public advertisement) in the hospital

#### AHN JU HEE, LEE SU JOUNG

#### Introduction

Last 2015, Important issue of Public Health of the Republic of Korea was realistic results obtained in non-smoking policy. The smoking rate of young people, including elementary school students has increased steadily. After the action of the tobacco price increase, It has seen a decrease in smoking rates while rising again. hereto, Suwon Hospital HPH team had planned to strengthen and promote the importance of smoking, and Increase in the number of quit-smoking clinic treatments.

#### Purpose/Methods

We had collect relevant non-smoking public service announcements broadcast in Jan. 2005 until May 2015 in the Republic of Korea Ministry of Health and Welfare. During for a period of 6 months, Among the most impressive advertising elected in 15 kinds, It was screened in the waiting room so that patients can see the advertising of medical wait at least 10 minutes. The doctor will check the patient of what If you or your family is smoking and he gave a smoking education. The doctor also heard the testimony of this advertising. HPH team was introduced to patients who respond that they are smoking going to non-smoking clinic.

#### Results

Since 2011 HPH Hospital Suwon team was going to quit smoking campaigns with local public health office. Compared to the previous May 2015, Public health smoking cessation counseling visits increased approximately 1.7folds, and the number of quit-smoking patients of Suwon Hospital was increased approximately 1.5-folds. Then Suwon Hospital was expanded non-smoking advertisement screened in hospital a total of three locations. We are with the screening of the ad when we do visit education in local schools.

#### Conclusions

Through the HPH activity in the last five years, We found that most patients prefer maven and impact of the recommendations of doctors. Through this activity, we also found that PSA is giving a very effective aid in smoking and health care that hospitals and doctors emphasized. Because PSA makes it very interesting for medical advice.

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#### The Effectiveness of Outpatient Smoking Cessation : Medication Therapy and Related Factors

#### WU Yeh-Hsun, HONG Su-Yiung

#### Introduction

Smoking is the most severe public health issue around the world. We joined ENSH-Global Network in 2011, which established the value of tobacco control and enhance the health promotion. We have been able to achieve the 10 international standards for tobacco free health care. When people take medical care in hospital, there will be the best opportunity of quiting smoking. We identify tobacco use status of patients so health care providers can urge cessation and offer assistance.

#### Purpose/Methods

Using a prospective data mining methodology, this paper studied cases receiving 5A (Ask, Advice, Assess, Assist, Arrange) smoking cessation treatment from January 1 2014 to December 31 2014. There were 348 well-recorded cases and all of them were over 18 years old. Successful cases are defined as no smoking for 3-6 months. Variables include demographic factors, Nicotine Addiction Scale, motivation, experience of smoking cessation education, medication length and the history of related diseases.

#### Results

348 cases receiving smoking cessation treatments (Varenicline) and the average age was 48 y/o. Males accounts for 83% and the average medication length is 4.2 weeks. The overall success rate is 42%. There are significantly correlated (p<.05) to scores of nicotine addiction, medication length, diabetes mellitus and cardiovascular disease. Furthermore, successful odds ratio calculated with logistic regression: the length of medication (OR=1.071,p=0.041), the degree of nicotine addiction score (OR=0.874, p=0.006), the presence of DM(OR=0.501, p=0.014), and the CVD (OR=0.402, p=0.035).

#### Conclusions

The higher the degree of nicotine addiction, the elder the cases are and the lower success rates they have. The longer the medication length, the higher success rates are. Cases with diabetes or cardiovascular diseases are more likely to fail. Recommendations for future clinical nurses include strengthening health education for cases with diabetes or cardiovascular diseases by emphasizing the impact of smoking on diseases to increase their motivation.

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#### The effectiveness of Tobacco Cessation Course on adolescent smoking behavior

### SHIEH Ying-Hua, CHEN Chiun-Min, LIU I, GAO Ai-Xuan

#### Introduction

In Taiwan, lung cancer is always among the top rating death-causing cancer. According to the adolescent's smoking behavior survey of Health promotion administration in 2014, average high school students' smoking rate decreased about 0.5 to 0.6 percent per year from 2008 to 2014, but the smoking rate increased about 38.5% during Grade 9 to Grade 10 (transition from junior high to senior high school). Thus, the change in adolescent smoking rate from junior to senior high school should be concerned.

#### Purpose/Methods

The Wan Fang Hospital has promoted Tobacco Cessation activities to adolescents. We held tobacco prevention programs in campus with cooperation by schools in Taipei WenShan Community during September to October 2014. We do assessments before and after the course to evaluate the effectiveness of the program. The assessments include knowledge about harmful effects of tobacco, smoking attitudes, and self-efficacy(the degree of confidence in certain situations to not smoke). A total of 105 high school students has been assessed and 93 questionnaires were collected.

#### Results

The results showed a statistically significant improvement in knowledge about harmful effects of tobacco and smoking attitudes before and after the course. However, no significant difference before and after the course in terms of self-efficacy. ("knowledge about harmful effects of tobacco" scores: before course: 81.95, after course: 84.57, P = 0.048494 <0.05) ("smoking attitude" scores: before course: 42.15, after course: 44.01, P = 0.037 <0.05)

#### **Conclusions**

There were significant improvements about the knowledge in harmful effects of smoking and the negative attitude towards smoking behavior after the course. But even if adolescents' knowledge and negative attitude toward tobacco smoking had improved, there were still no ways to resist the temptation of smoking effectively in special situation. It has also shown an important influence on smoking behavior by the environment as well as peer and family, so more Tobacco Cessation propaganda on non-smoking family and campus should be provided.

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# The Association between Smoking Behavior and Body Mass Index among Young Military Conscript in Taiwan

#### FANG WEN-HUI, LI SHAN-RU, CHIU YU-LUNG, KAO SENYEONG

#### Introduction

The prevalence of cigarette smoking in men in Taiwan is 29.2%, however, it could raise up to more than 50% in young military conscript. Many previous studies pointed out the association between cigarette smoking behavior and body mass index (BMI). The cigarette smoker showed more weight gain when they quitted smoking, while continuing smoker are likely remain stable or lose weight.

#### Purpose/Methods

This study aims to evaluate the influence of smoking behavior in BMI of young conscript during military service. A longitudinal prospective study was conducted in the young conscripts in Taiwan from 2009 to 2012. We enrolled young conscripts who had more than 10-months service and cigarette smoking behavior. All participants completed structured questionnaire that included sociodemographic feature and smoking behavior at the beginning and end of military service. Also weight and BMI were measure at the same time.

#### Results

A total of 9551 young conscripts were recruited for this study at reporting to military service. Education levels, age of first smoking, betel nut chewing, age of first betel nut chewing and smoking behavior change showed statistical significance in groups stratified with BMI. With decreased BMI group as reference, continuing smokers showed Odds Ratio equal to 2.58 (p<0.001) in non-change BMI group, but no significant difference in increased BMI group.

#### **Conclusions**

BMI of continuing smokers showed no significant change during military service. We inferenced that continuing smokers fear of sequaela of quitting smoking lead to obesity rather than quit moking. Recommendations for future smoking cessation counselors to provide more health education information about cessation of cigarette smoking, and continued the phone tracking and counseling in order to achieve the success of smoking cessation and control target BMI

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### Session M2.8: Improving the health of (hospital) staff

The message prompting based telehealthcare model for workplace

#### health promotion: self health management in a workplace population with hypertension at risk

#### CHEN Ling-sui, KUO Yen-hung, YEH Shuchuan Jennifer

#### Introduction

Telehealthcare, the ICT enabled delivery model, has been called for the urge to develop a model with not only effective but also cost-effective. The concept of message prompting allows seamless interaction between participants and interventionists. That makes the engagement of participants within the intervention can be well monitored and compared to exposure. Besides, message prompting based intervention may be more cost effective. However, the development of a cost-effective intervention is still under constructed.

#### Purpose/Methods

Purpose. To develop and validate the personalized message prompting based telehealthcare model. Methods. We first developed a medical care based telehealthcare model in a medical center. Next, a personalized message prompting based telehealthcare protocol was designed and carried out a randomized controlled trial. A totally 441 participants finished the 3 months follow-up and were randomized assigned to the three-arm trial. The trial includes control group, intervention group with medical care based telehealthcare model, and with the message prompting based protocol.

#### Results

The interventions of both models can significantly enhanced self-efficacy on hypertension management comparing to the control group. The interventions effects included weekly physical activity, blood pressure measurement at home, and blood pressure measurement at workplace. Comparing monthly weight change, there have no statistically significant differences been founded after three months (p-value= 0.094), and the intervention effect was not statistically significant (p-value= 0.070). The mediation effect was statistically significant on blood pressure measurement at home, rather than on BP at workplace.

#### Conclusions

The medical care based telehealthcare model and the personalized short message prompting based telehealthcare protocol were found to be effective in enhancing individual's psychological states and health-related self management behaviors with regard to hypertension at risk. Meanwhile, both interventions made an increasingly enhancement on weekly health promotion behaviors by about 1 day. No significant differences were found in both telehealthcare models. it reflects the cost-effective of message prompting based intervention.

#### Comments

This is an original research to validate two telehealthcare models on workplace hypertension self management. The present study showed that the two models were effectively enhancing psychological state and health-related self management behaviors regarding to hypertension at risk. The current study, to our knowledge, is the first study to integrate the chronic care model into the workplace health promotion and health management of population with hypertension at risk.

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Survey on NCD related health status, health behavior and health literacy of health care workers in hospital worksite

### PENG Cheau-Jane, LEE Miao-Tzu, LIU Mei-Yuan, SUN Chien-Fen, CHOU Willi

#### Introduction

Hospital workers are both health information givers and receivers. Health knowledge they obtained will affect their attitudes and behaviors, which further affect their family and colleagues as well as patient health care. This study aimed to know non-communicable disease (NCD) related health status, health behavior and health literacy of employees and leaders of Chimei hospitals so that further health promotion activities can be designed to enhance health literacy.

#### Purpose/Methods

Self-reported questionnaires designed to inquiry demographic data, health behavior, food intake/nutrition balance, physiological activities, health status and health promotion anticipations were issued to 50 leaders and 1,211 employees (20% employees) in 2014. Valid questionnaires collected were 998 for employee (response rate 82.4%) and 43 for leaders (86%), which proved to be representative of Chimei hospitals in regards of gender, duty position and age distribution.

#### Results

Physician, allied health professionals had higher health knowledge scores than nursing and administrative staffs. Health attitudes were better among 40+ in age, allied health and administrative than youngers, physician and nurses. Simplified food frequency questions indicated that leaders, males, seniors, higher education level and physicians showed more balanced food intake. As to the outcome of NCD health management, prevalence of overweight & obesity were higher in males (54.9%), along with seniority, inversely related with education, and higher among physicians (41%).

#### Conclusions

There is room to improve on NCD related health knowledge, attitude or health management among health care workers from our survey. Knowing their current health status and health literacy helps to establish the base for planning tailored programs for different health care workers in hospital worksite.

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Associations of perceived noise nuisance with duration of sleep,

### depressive mood, and job stress among hospital nurses in Taiwan

### LO Wen-Yen, CHIOU Shu-Ti, CHIEN Li-Yin, HUANG Nicole

#### Introduction

Noise nuisance has long been existing in many hospitals and was shown to have negative effects on physiological and psychological health among employees. However, previous studies mainly focused on hospitalized patients. Few studies have reported the association between noise exposure and health consequences among hospital nurses.

#### Purpose/Methods

The objective of this analysis was to examine the associations of noise nuisance with duration of sleep (>= 7 hours and < 7 hours), depressive mood, and job stress among 21,351 full-time hospital nurses in a nationally representative hospital survey across Taiwan in 2011. The overall response rate of this survey is 71.5%. Data analysis was performed using multivariate multiple regression model given sex, marital status, educational level, age, accredited hospital level, weekly work hours, and work unit were controlled.

#### Results

About 21% of nurses reported noise nuisance in the work environment being very annoying. More than half of nurses (51%) reported duration of sleep < 7 hours. Nurses reported mild to medium levels of depressive mood, and medium to high levels of job stress. The multivariate multiple regression showed that noise nuisance was significantly associated with duration of sleep < 7 hours (adjusted OR=1.1, C.I.=1.03 to 1.17, p<.01), depressive mood, and job stress (standardized  $\beta$  = 0.14, and 0.19; p<.001).

#### **Conclusions**

Noise nuisance is common in healthcare workplace. Our study confirmed that among hospital nurses, the exposure to noise nuisance was associated with negative health as that previously noted among patients. Further studies should look at strategies to decrease noise exposure and their effect on health improvement among nurses.

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### Session M2.9: Creating a healthy workplace

Impact of WHO Health Promoting Hospital Programs on Employee Health

KIM Kue Sook, LEE Ji Hong, LEE Yu Jeong, CHOO Daniel, LEE Woo Hyung, LE Lai

#### Introduction

This research was conducted in order to investigate the impact of health promotion programs on Seoul Metropolitan Hospital employee health after the hospital became a World Health Organization Health Promoting Hospital in 2011.

#### Purpose/Methods

The results of health promotion programs such as body fat testing for obese employees, obesity counseling, advertising hospital gym usage to hospital staff, usage of stairwells for travelling between the first 3 floors, and maintenance of a "health and safe working environment" from 2011 to 2015 were gathered. In order to assess the impact of these programs on employee health, the employee health examination results of 29 individuals from 2010 and 2015 were analyzed using a paired T-

#### Results

1) Weight: significant increase from 62.69 kg in 2010 to 64.72 kg in 2015 (P<0.01) 2) Body Mass Index (BMI): significant increase from 22.03 in 2010 to 22.85 in 2015 (P<0.01) 3) Total Cholesterol: insignificant decrease from 177.17 in 2010 to 171.24 in 2015 (P>0.05) 4) LDL Cholesterol: insignificant decrease from 105.28 in 2010 to 100.69 in 2015 (P>0.05)

#### Conclusions

Although the programs that worked towards "a health and safe workplace" did not have significant results, the overall total cholesterol and LDL cholesterol levels decreased. The weight and BMI of the employees increased, however this can attributed to the fact that rather than using body composition analysis (such as InBody), employees took self-measurements that cannot be reviewed for accuracy. Due to the results of this study, the height and weights of employees will be measured using InBody. We also believe that by continuing this project we will further decrease cholesterol levels, a primary factor in chronic disease, in our employees.

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Establishing friendly workplace for reducing the 3-month turnover rate of new nursing personnel in emergency department

HUANG Ruei-Min, CHANG Ya-Jun, LI Yu-Ru, WANG Chao-Lin, CHENG JUNG-FENG, HSU Chi-Chen, CHUANG Shu-Ting, CHIEN Sou-Hsin

#### Introduction

The turnover of every newly nursing personnel is a loss in training cost, care quality, and team morale. In Taiwan, the turnover rate of newly nurses is 42.8%. This is especially true for the emergency room environment, where the nurses have to face with a variety of illnesses, rapidly changing prognosis, and poor nurse-patient relations that can result in high stress and turnover

of new nurses. 2011-2014, In the emergency department of our hospital, the three-month turnover rate of new nurses is 46.43%.

#### Purpose/Methods

The proposed program was commenced in 2015, for reducing the turnover rate of new nurse within 3 months of employment and creating a friendly working environment. The improvement program includes: 1. full-time instructor accompaniment, 2. diverse teaching and inductive learning, 3. relationship building gatherings and outings, and 4. instant messenger groups for real-time reposes and feedback.

#### Results

The new nurse three-month turnover rate was significantly reduced, during the program period from Jan to Nov, 2015, to 18.18%.

#### **Conclusions**

A diverse training program is needed for the new nurses to adapt to the new working environment and unit. A structured guided learning program provided for the new nurses will enable them to understand their needs and give them, with respect and trust, a sense of belonging. The new nurses will be cared and supported throughout the training process to improve work efficiency and self-realization.

#### Comments

The turnover rate can be reduced by changing workplace culture with friendly methods through regular avocation and activities, where the new staff are able to feel the warmth of peer support and self-improvement.

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#### Session M2.10: Miscellaneous

#### A survey on Japanese dietary habits

#### **WONG Toh Yoon, MURATA Hirohiko**

#### Introduction

According to the World Report on Ageing and Health 2015, Japanese people have the highest life expectancy at birth. Two key behaviors that may influence healthy ageing are physical activity and nutrition. Although the Japanese diet is not only considered healthy but also recognized as a cultural treasure by UNESCO since 2013, dietary patterns or habits may contribute to a healthier lifestyle as well. We report the results of a survey conducted at the health check-up center of our institution.

#### Purpose/Methods

A questionnaire survey was conducted at our health check-up center on 305 willing participants. Questions asked included dietary habits such as number of chews before swallowing, length of meals, order of food taken etc.

#### Results

Of the 305 surveyed, 200 were women. Participant's age ranged from 22 to 77 years old (median 50). Average BMI was 22.7 kg/m2 (SD3.6). The majority of participants chewed their meals

between 10 to 19 times before swallowing. Only about 30% chewed their meals less than 10 times. 74% of respondents reported their meals to last between 10 to 30 minutes. During a typical Japanese meal, 58% reported eating vegetables first and only 6% began with rice.

#### Conclusions

Simple practices like chewing slowly and starting each meal with vegetables seem to form part of the average Japanese dietary habit. Since each country differs in their diet and access to nutrition, a clearer understanding and practical emulation of Japanese dietary habits may be instrumental to avoid obesity and achieve a healthy way of life.

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#### Reducing Alcohol Use Project to Prevent Repeat Drunk Driving in Prison before Returning Community

#### FANG Chun-Kai, SHIH Pao-Wen, YEH Tzu-Ching

#### Introduction

Drunk driving was the most focal issue in Taiwan's traffic accident. Even with rigorous penalties and increased enforcement of anti-drunken driving legislation, more than 31 percent of drunk driving cases involve repeat offenders. An alliance of NGOs and MacKay Memorial Hospital (MMH) had been formed with objective to reduce drunk driving. The alliance provided a program included alcohol cessation educational group in prison and case management for discharged prisoners.

#### Purpose/Methods

The alcohol cessation educational group based on the BRENDA model and harm reduction approach in the Taipei Detention Center, Agency of Corrections, Ministry of Justice. The group was delivered once a week for 8 weeks, including cognitive education courses and emotion regulation courses. The alcoholic prisoner was assessed with Brief Symptom Rating Scale (BSRS-5) and Alcohol Use Disorders Identification Test (AUDIT) to determine the severity of depression and alcohol use disorder. Then social workers help them finding proper jobs, improving relationships with families. If needed, alcohol prisoners would be transferred to MMH for medical treatments.

#### Results

In 2015, there were 111 alcohol prisoners join the project. Among all participants, 54% were very dangerous alcohol users, 44% were dangerous, and only 2% were non-dangerous. All they attend the groups and 106 of them received the extra individual counseling in the prison. After returning to the community, 97.3% were not drunk driving. 2 cases kept drunk driving again, and 1 case died because of infection disease. For their family, the satisfaction was 4.25/5.0 after the project.

#### Conclusions

A comprehensive drinking and driving project is not only enforcement of laws, rehabilitation of offenders is also need to

develop to keep them from driving drunk again. In our program, only 2 participants repeated drunk driving during 9 months follow up period. In the future, we are planning to develop a long term program to track the outcome of alcohol prisoners and to evaluate the effectiveness.

#### Comments

To prevent drunk driving is not legal and social issues but also promotes health and happiness for all citizens. The project has been promoted to the other areas in Taiwan.

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## Compare of the using of hypotic drug between different professional training doctors

#### **CHEN Liju**

#### Introduction

With the increasing prevalence of insomnia people, there are 30% of people with sleep disorders problems. Sedative hypnotic treatment of insomnia, become Taiwan's most commonly prescribed psychiatric treatment drugs, and physicians in the medical industry has been classified as a career high working pressure, this study aimed to compare differences between the different divisions of specialist doctors and prediction using hypnotics significant factor affecting the use of specialist sleeping pills.

#### Purpose/Methods

This study is a secondary data analysis, data source for 1997-2011, "National Health Insurance Research Database," a series of capital profile medical institutions, medical personnel basic profile, specialist certificate Master, outpatient prescription files. With SAS version 9.2 statistical analysis to describe the distribution of each variable, chi-square analysis comparing differences in doctors use hypnotics in different divisions and specialist logistic regression to predict the impact of significant specialist using hypnotics factor.

#### Results

From 1997 to 2011 a total of 644 specialists used BZD and NBZD. 390 of them have used the results of the analysis BZD or NBZD, including surgical and emergency statistically significant correlation (p=0.04,OR=1.91;p=0.00,OR = 2.45; p= 0.01,OR = 5.94). Use BZD drugs, depart of medicine and surgury have the significance (p= 0.04,OR = 1.94; p= 0.02,OR = 2.15), while emergency department is significant in the use of NBZD ( $\rho$  = 0.00,OR = 8.28).

#### Conclusions

The results of this study shows inside and outside, the use of specialist emergency hypnotics have a higher tendency to want to provide decision-makers of medical institutions of effective information, attention to doctors working pressure and formulate relevant policies to improve the health care environment.

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#### Cross-country comparative study of Health Promoting School Services

#### KIM Kue Sook, LEE Woo Hyung, LEE Yu Jeong, CHOO Daniel, LE Lai, LEE Ji Hong

#### Introduction

In 1995, the World Health Organization created the Global School Health Initiative in an effort to strengthen public health and general health education on a regional, national, and global scale. Many nations put much effort in creating Health Promoting Schools (HPS), but our research has shown that each nation has differences in health services and policies. We propose that a Health Promoting Schools Program be created to standardize Health Promoting Schools.

#### Purpose/Methods

Students attending schools in South Korea, the United States, Hong Kong and Vietnam identified the health services offered by their schools. The differences and present status of these health services were analyzed.

#### Results

1) South Korea: Consultation given in accordance to National Student Health examination results. 2) United States: Focus on sexual health, mental health and alcohol and drug abuse prevention, etc. 3) Hong Kong: Focus on improving sports and exercise capacity. 4) Vietnam: Focus on self-physical and mental care, physical activity, etc. 5) Weaknesses in majority of countries: Nutrition and diet consultation, vaccination management, etc. 6) Problems linked to cross-border health services, such as vaccination, exist due to lack of standardization.

#### **Conclusions**

Our research confirmed that the lack of standardization between nations in physical, mental, environmental, and behavioral programs and policies mandated by WHO of Health Promoting Schools results in problems for the ongoing health care of students that must frequently move between nations. The research shows that there is a need for the development of a standardized and globally accepted health services and health promotion program that offers accurate communication and continuous program development on a global scale.

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### Session P1.1: Promoting health of and with community citizens

### Enhance students' drug knowledge through medical competition

#### **HUANG CHENG Tseng**

#### Introduction

In order to further market the five core abilities in correct medicine usage and anti-drug concepts, cultivate student emphasis on the safe administration of medicine, and to help establish correct views in the administration of medicine, pharmacists pay service and promotional visits to schools, so that schools can be combined with community medicine administration consulting stations, thereby establishing the objective of "one pharmacist per school," making pharmacists the gatekeepers to safety in the administration of medicine.

#### Purpose/Methods

Schools formed teams to sign up, and participating schools must provide students with correct education and promotion regarding administration of medicine, arrange for pharmacists to go to participating schools, and promote correct administration of medicine. Each school recommended 3 students, and there were 112 schools divided into 5 divisions in the competition. Each competition involved 10 basic concepts of administration of medicine. Each correct answer was 1 point. After 10 questions were asked, the final scores were counted. In the event of ties, additional questions were asked. The winner was selected for semi-finals and finals, to ultimately choose the winning team, which received a prize.

#### Results

Students have correct basic knowledge regarding the administration of medicine and were able to obtain high scores. Students had weaker understanding of the health insurance system, legal regulations, and illegal drugs, resulting in generally low scores. This showed that students were less familiar with these concepts. It is suggested that when promoting policy, the government or schools should emphasize these weaker areas.

#### **Conclusions**

Through the Shennong Academy Competition, students can receive correct medicine administration views from pharmacists, and they can learn to cooperate and help each other. Pharmacists have always played important roles in the community; other than answering questions about the administration of medicine in hospitals and communities, this model in promoting concepts in medicine administration has yielded significant effects.

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In "Service-Learning" program to promote youth participation in health care within Taiwan Hospitals

#### CHIANG Shu-Fen, LAI Chun-Huang, FU Tzu-Chen

#### Introduction

Youth social volunteers are important resources of community. In 2013, based on promoting youth joining community health care service, we launched the first ever junior-high-school-student service learning program in Taiwan. We provided a platform and opportunity for youth to join health care activities. Through pre-service training, during-service guiding and post-service reflection, we successfully implanted the Service-Learning concept to youth and promoted community health without saying a word.

#### Purpose/Methods

Our purpose is to promote Learn-Service concept, to study the motivation process and to learn feedback from students to show the effeteness of the program. During the summer vacations between 2013 and 2015, we received 300 junior high school student applications. The pre-service education provided the cognition of the hospital organization, ethics, technics, infection control, and others. With a one-on-one instruction, the pupils learned technics, public health, health-care spirit, and obtained an opportunity of working amongst strong role models.

#### Results

In the beginning, 98% of students attended research to obtain certificate hours. 53% came non-voluntarily. Students learned: help is happiness and giving is an honor. They have a much broader understanding of medical know-how and importance of public health. They use methods learned in life, and share joys with their peers and families. 97% of students in the post-service survey expressed the willing of rejoining this program, because what they gained is more than the certificate hours.

#### Conclusions

With emphasizing on serving and learning, this activity observes and experiences that service providers obtained a lot more than they initially anticipated and service receivers glacially accepted services provided, which is a win-win scenario. For students, it's a life experience, diverse learning and a drive for the public health-care service. The hospital not only provides a platform to learn social responsibility, it also contributes to the community. That is why we strongly believe we must and will continue.

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An evaluation of Interference of community assistants into Home Care and palliative care Service

#### TSAI YI-FAN, HOU CHUN-MEI, YANG SHIH-CHEN, HO HSUAN, CHEN SUNG-YUN

#### Introduction

The demand for long term care service increases with the idea of "Aging at Home" with Taiwan's aging population. Thus, the

methods for home care service became an area of study for long term care service. In January 2015, 20% of the 255 elderly required home care service in a district hospital. It was hope that the interference of community assistants at home can improve home and palliative care service, and create a better living environment for elderly people.

#### Purpose/Methods

4 community assistants caregivers with a minimum of 3 years work experience were selected during July to September 2015. Caregivers selected also fulfil the following criteria: Level C technician for caring service, proficient communication skill, willingness to palliative care and completed of home care and palliative care service training. Barthel activities of daily living (ADL) model was made reference for the working hours of the caregivers. Three levels of working time were categorized; 25, 50 and 90 hours per month. Adjustments of working hours of caregivers are flexible and adjustable to provide an integrated service.

#### Results

A total of 46 elderly and palliative case received care services in October to November 2015. Evaluations by care giver officers were conducted without prior notification. Assessment criteria include the efficiency in maintaining body hygiene, accuracy in bathing in bed and correctness of body flipping. The audit results reflected 100% satisfaction. Survey questions were also distributed for evaluation. Satisfaction rate for the community assistants care services of patients and families were 97%, care giver officers of 93% and community assistants for job satisfaction were 94%.

#### **Conclusions**

The interference of community assistants at home can provide body hygiene and housework service, thus effectively improve quality of care service. This model can be a reference point for future policies planning on long term care giving service, ultimately creating a healthy supportive environment.

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Help Change Exiting Austronesian Herb Public Health Issue For Safer Community Health Through Set Up Of Center for Austronesian Medical and Agriculture Research

### NEOH Choo Aun, HUANG Tzou-Chi, YU Joseph Kwong-Leung, CHIA Pei Fang

#### Introduction

Austronesian communities span a wide geographical area from Taiwan south to New Zealand, encompassing Indonesia, the Philippines, Malaysia, New Guinea and the Pacific islands, with most located in tropical and subtropical regions, there is a rich variety of medicinal herbs with a long history of use. Many population of the Austronesian are still using their traditional

herb without knowledge of their safety and side effect. Mobidity and mortality already reported in different countries after consuming their traditional herbs.

#### Purpose/Methods

These Austronesian herbal remedies, for example, Indonesian Jamu, which have undergone relatively little scientific research on their efficacy as compared to their traditional Chinese counterparts, possess significant potential for development, and thus is where we need to help cross culture and cross countries for their community health promotion and public health. We use Western modern medicine technique to research the East and Native Austronesian Medicine herb to ensure it safety for the public to consume

#### Results

Results:Our hospital work with NPUST to help researchers from Austronesian to make their own traditional herbs more healthy to consume. Creating an Austronesian Culture of Health through innovation & cross countries partnership. Researchers from Indonesia, Thailand, Malaysia already sent their researchers to the center to do research on their traditional herbs since 2012. We also successed to held 4 international symposium in Taiwan on the related topic. Indonesia has suggust that they will held the next international symposium, out side of Taiwan!

#### Conclusions

When promoting HPH in multiple culture, races society or to different countries across the world we proposed using the model of East-West-Native Integrated Medicine as a global HPH model. Our Center for Austronesian Medical and Agriculture Research has already achieved our purpose of helping to preserve and promote safe and healthy Austronesian traditional medicine and delivery of care through partnership between professionals from different countries and clients

#### Comments

we proposed using the model of East-West-Native Integrated Medicine as a global HPH model.

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#### Roles and Functions of the Care Workers on the Community Care Program

### CHANG Li-Chen, CHUANG Pei-Chen, CHANG Ya-Ju

#### Introduction

The proportion of the elders over 65 years old is more than 16% in Chiayi County, ranking the highest in Taiwan. To promote health of the community-dwelling elders as well as facilitate their successful and active aging, Chiayi Christian Hospital cooperated with the government of Chiayi County to provide community care program that recruited locals as the social care workers to help the elders. Effectiveness of the program and the roles and functions of the workers are closely related.

#### Purpose/Methods

This study aims to explore the roles and functions of the care workers, focusing on their experiences of offering service in the community care program. Our study applies quantitative research through 2 focus groups and semi-structured interviews with 14 care workers, by service center and total years of service, to collect information. Based on the interview records, we coded and analyzed the verbatim drafts.

#### Results

Two core results are found as follows: 1. The enthusiastic supporter: The care workers friendly listen to the elders' concerns and provide positive feedback for those with withdrawal behaviors to overcome the internal obstacle to accomplish the target activities. 2. The resource connector: The care workers take the initiative to understand what needs of the elders are and refer to the social workers to arrange relative social resources, to enhance the security of the community for the elders.

#### Conclusions

Community care programs are not only good for the health of the community-dwelling elders, but improving the security of the elders who live alone. However, the effectiveness of care programs depends on carrying out the roles and functions of the care workers. Facing the rapid ageing of the population structure, accordingly, we recommend that training more locals to empower community care ability for the community-dwelling elders, and facilitate care functions of the community as well as achieving ageing in place.

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## Community-Based Participatory Global Health Promotion Activities for Indonesian School Children

#### KWON Eunjoo, NAH Eunhee, JEONG Heon-Woo, JEOUNG Hoo-Gn, KIM Byung-Gwan

#### Introduction

Reducing health inequities is important because health is a fundamental human right and will decrease the negative impact attributed to opportunities to enjoy lives and attain their highest level of health. Community participation is at the heart of Ottawa Charter and the best practice in health equity. Especially, improving children's health in developing countries is vital to the nation's present and future. Thus, it's meaningful to share the global experiences in the health promotion activities for children of developing countries.

#### Purpose/Methods

The purpose of this study is to describe the global experience and activities for Indonesian school children, entitled "School Health Promotion and Education in Banda Aceh, Indonesia(2012-2014)" performed by Korea Association of Health Promotion(KAHP).

Global activities were applied principles of Community-based Participatory Research(CBPR).

#### Results

Global project was made progress along principles of CBPR included: 1) entry into community 2) issue identification and prioritization 3) strategy development 4) implementation 5) transition. Specific activities to promote indonesian school children were included the followings: 1) building school infrastructure 2) evidence-based health promotion activities 3) health education 4) capacity building training 5) awareness raising 6) developing school health manual. The project was highlighted community engagement, participation, reciprocal partnership between KAHP and Indonesia, partner's capacity building.

#### **Conclusions**

CBPR can be a useful tool to advance children's health in developing countries. Participatory partnerships, capacity building of community members are critical and positively necessary in the global health activities. Moreover, enough time is required for developing partnerships, cultivating trust, sustaining collaboration. In 2015, KAHP has initiated the new school health activities in Aceh Besar, Indonesia.

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## The features of first aid and health care providing on Estonian small islands

#### ZIREL Katre, GAIDAJENKO Aleksei, ŠATALOV Uljana, VOLOVIK Valeria, POPOV Arkadi

#### Introduction

In 2011 Estonian Health Board decided to improve the First Medical Aid system on Estonian Small Islands. Before 2011 urgent medical help for the islanders was complicated, especially alerting and patients` transportation. There had been several delays in getting professional medical advice and help in difficult cases of patients` severe diseases or traumas.

#### Purpose/Methods

The project was delegated for implementation to North Estonia Medical Centre, which is a level-three health care providing hospital in northern and western regions of Estonia. The project started with Kihnu island (total population ca 600 inhabitants, in summertime the number of visitors increases up to 5000 people, as well as from inland and outland: Sweden, Finland, Norway, UK etc.). As project showed, the island Kihnu's population started to obtain a good-quality primary emergency care, the availability of Urgent Care Ambulance was increased, transportation and highly specialized Medical care became more available for the island inhabitants. Starting March 2012 Estonian Health Board decided to extend the project up to two Estonian Small Islands more: Vormsi island, total population 415 inhabitants and Ruhnu, population ca 60 inhabitants). The main purpose of the project is

to guarantee Estonian Small Islands' inhabitants and visitors Urgent Care Ambulance service as fast as possible, as much as employee's field of expertise is and to evacuate patients to properly corresponding Medical Centre according to their medical needs.

#### Results

Since then North Estonia Medical Centre started working process with human resources. Several hiring interviews though local inhabitants on each island have been performed, which finished with hiring four employees per island in the beginning. worked out a special educational program within frames of learning-onworkplace paradigm.

#### Conclusions

Continuing personnel's training and education of Estonian Small Islands` Urgent Care Ambulance teams in the name of best first aid and urgent care providing for small islands' inhabitants and visitors; Continuing development of Telemedicine consultations as a part of Urgent Care Ambulance working procedure, reassuring Estonian Small Islands inhabitants in highly professional medical help or advise available even distantly Conducting Health Care Promotional days on each island and some others once a year cooperation with local administration, Rescue Board and Police Department, which we are calling Island Peace days; Spread this course to all interested islanders, to assure maximum knowledge and first aid skills among all permanently living islanders North Estonia Medical Centre in cooperation with Estonian Government and Health Board, cares about other Estonian Small Islands and donates first aid kits with enlarged equipment and some over-counter medicines to other small islands Administration per request.

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## To Survey the Demand assessment of Health, Happiness and Satisfaction for Church Service Sites

#### LIN Wei-Chen, CHIU Po-Hao, TSAI Cheng-Ho, YEH Hung-I, CHEN Hsin-Yung, TUNG Szu-Chin, CHANG Ya-Wen, LEE Shu-Chen

#### Introduction

「Community」 is the most life-arena to connected personal, families, society and country. Imported issues about health promotion related and activities, improved residents' life-quality and healthy life-style, enhanced resident's happiness by connected to church. This study was to survey the demand assessment of Health、Happiness and Satisfaction.

#### Purpose/Methods

We cooperated with Presbyterian Church to set 15 service sites, and imported 25 health promotion programs, assigned 1000 questionnaires collected 584, recovery rate 58.4%. Collected time form 2015/01/01 to 11/12. Happiness scale was Likert scale and it's Cronbach's was 0.892, subscale of subjective was 0.847, subscale of objective was 0.933.

#### Results

Up to 40% residents with overweight and obesity. Health diet, Health care and Cardiovascular disease was the top 3 issues in demand of Health. Up to 96% hold satisfaction attitude for programs and speakers. Average of Happiness was 4.19, subscale of subjective was 4.08, subscale of objective was 4.19. There were significant different between education, psychological status and happiness. Happiness and satisfaction were positive correlation.

#### Conclusions

There were high degree of certainty in Happiness and satisfaction after imported Health Promotion programs. It also could got positive identity by meet health demands to achieve life-style and behaviors, established interpersonal relations, knowledge and spirituality care. Education was the point, suggested that can according the demand assessment of health to advised issues and consider to design some easy to understand programs and language for low educations.

#### Comments

Happiness would be the measure to enhance quality and satisfaction of Health service.

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### Become friends with public health "Friends Week"

#### KIM Hyon Jeong, KIM Seoung Su, YUN Hwa Young, KWAK Hee Jun, KIM Hyon Jeong

#### Introduction

Almost all patients who visit the hospital have high psychological stress for receiving treatment. Particularly, the patients of public hospitals who have the low social economic status have been isolated from their family and society, so they are not easy to relieve stress. It results in a low therapeutic effect. For the first time in Seoul, Korea, Dongbu hospital held a "Become a friend with public health - The week of friendship" event for the citizens.

#### Purpose/Methods

The purpose of this event, First. provide healing of emotional support and psychological stability for patients who are medical underprivileged of Dongbu hospital. Second, healing for staffs who are suffer from medical service for patients. Third, healing for local residents who has difficult to have an opportunity of cultural experience due to socioeconomic situation. " The week of friendship" event are consists of five themes "MUSIC, DANCE, PLAY, MOVIE, CARTOON" conducted for five days.

#### Results

There was high participation of hospital patients and local residents at this event. 1350 people participated in this event. 120 people participated in the survey showed a 4.3 out of 5. The

results showed very high satisfaction. From this event, we were able to active cooperation with the local community organizations such as welfare centers in the region and we had opportunity that can communicate with the citizens.

#### Conclusions

"Become a friend with public health - The week of friendship" event, should not be terminated simply by event. It becomes a basic that can hold a variety of cultural events through the cooperation of talent donation and regional organizations. We hope that the event has been helpful in patients and citizens health

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## Health promote in the communities: the experience of a medical center in Taiwan

#### KUO MEI-LI, CHAN YEN-TING, CHANG SHU-WEN

#### Introduction

Health promotion is important and the current health promotion hospitals also defined itself as a health-enhancing environment. They actively cooperate with community health opinion leaders, schools, workplaces and other fields. In the communities, most of the activities participants were the health and sub-health groups, mostly aged 50 to 70 years old. Our intention of wake people up to care their health, enhance their health consciousness and change their health behavior.

#### Purpose/Methods

To improve community participation, we included 1,180 residents, 410 males and 770 females, in the neighborhood of a medical center. We designed a series of health promoting activities, combining with health consulting station mode. The participation was recorded in a "loyalty card" from October 2014 to September 2015. Their body height, body weight, waist length, blood sugar, blood pressure and weekly exercise frequency were recorded before and after joining "loyalty card" program. Difference in the measured parameters was presented.

#### Results

61.4% of the residents participated actively in the "loyalty card" program. Participants had an improvement in at least one metabolic syndrome parameters in 14.9% males and 22.3% females, respectively. Specifically, improvement in blood sugar, blood pressure, waist length, body weight, and exercise frequency were 19.2%, 10.1%, 35.1%, 6.8%, 22.4%, respectively. Improvement in blood sugar, blood pressure, waist length, body height, and exercise frequency were 13.2%, 16.0%, 19.8%, 14.5%, 61.5%, respectively. Female had significantly higher exercise frequency than males.

#### Conclusions

The "loyalty card" program enhanced health promotion activity participation rate to 61.4%. Females were more willing to exercise than males. We will design more activities, exercise-

oriented interventions and diet regulation to enhance the residents' participation and health in the future.

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#### Assessment and Improvement of General Student Health at Austin Preparatory School, Massachusetts

#### LEE Yu Jeong, KIM Kue Sook, CHOO Daniel, LEE Ji Hong, LEE Woo Hyung, LE Lai

#### Introduction

Health promotion is more relevant today than ever in addressing public health problems. Since students spend one third of a day at school, learning and socializing, schools should focus on student health promotion in four main areas: healthy hygienic environment, mental health counseling with social support, physical health promotion, and nutrition. I would like to promote our school by analyzing above four factors.

#### Purpose/Methods

My aim was to research on how lack of sleep affects students' stress level, how physical exercise affects students' BMI, how nutrition affects students' performances, and how hygiene plays a preventive role against the spreading of diseases. By placing posters of the proper way of washing hands, I will test bacteria level on students' hands before placing posters and mouthwash in bathrooms and after placing them to compare how much student get a protection from germ and bacteria.

#### Results

I figured out that only 33% of the students get enough sleep and their level of stress was much lower. Unfortunately, students are burdened with a lot of academic work and so their physical activity is minimal. Most of the bacteria are spread through our hands, and yet students don't wash their hands often enough. Skipping breakfast not only impairs students' mental capacities and performances but also cause symptoms of gastritis, which can lead to gastric cancer.

#### Conclusions

Research shows that eating a healthy breakfast improves attention, concentration, academic achievement and physical energy. Nutritious breakfast is good for optimum mental and physical wellness. If you combine low impact and high impact exercise our core strength will increase range of motion and flexibility in the bodies. In the end, the most effective way for schools to promote health is to create an environment that encourages students to take care of their well being on their own.

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## Standardized assessment is needed for the promotion of public health and prevention programs in schools

#### CHOO Daniel, KIM Kue Sook, LEE Ji Hong, LEE Woo Hyung, LEE Yu Jeong, LE Lai

#### Introduction

Health promoting schools, according to the WHO, are schools that strengthen their capacity as a healthy setting for living, learning, and working by management of physical, mental, environmental, and behavioral aspects of its campus. Our goal is to research health policy and assessment forms of universities and other educational institutions on a global scale in order to find similarities and differences and to compare these findings to the standards of Health Promoting Schools.

#### Purpose/Methods

The research was performed by collecting, comparing and contrasting the health assessment forms and policies of schools of interest. Information was gained by identifying and listing health policy standards, examining health education programs and services, and observing the focus of health promotion at these various schools.

#### Results

Health policies and programs of schools highly varied. American universities had increased focus on alcohol and drug abuse prevention and mental health. Schools in Vietnam focused on exercise and physical wellness programs. Schools in Korea have assessment forms that examine adolescent well being at home that incorporated information such as amount of fast food consumed per week. A key contrast was that American universities had distinct immunization guidelines, but other universities in Vietnam and Hong Kong did not require immunizations.

#### Conclusions

Results show that the educational institutions of interest actively encourage and supply resources for students, faculty and staff to take of their health as desired by WHO's guideline on health promoting schools. However, the health policy standards and assessment forms of these institutions are extremely varied, leading to discrepancies in health educations and programs provided. Therefore, we suggest a global scale unified assessment form for universities that will help schools promote public health and reinforce preventative measures against global epidemics.

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A Review of the Effectiveness of the Community Health Promoted Activities by the Community Health Promotion Committee

### CHAN HSIN-LUNG, HUNG TA-CHUAN, TIEN JUNG-CHEN

#### Introduction

It is a big challenge to publicize health policy to local district. In order to construct well integrations between government institutions and community resource, " Tamsui MacKay Memorial Hospital Community Health Promotion Committee" was established since Aug. 2010. We wish this committee can enhance promotion and increase efficiency.

#### Purpose/Methods

The committee members include government public sectors, village offices, the community development association, churches, schools and community building management committee. Currently, 67 organizations participated the committee; covering five administrative districts approximately 500,000 population. Two conferences were held in one year to make annual guidelines, discuss the efficiency and share the results.

#### Results

In 2015, several issues were promoted by the committee, including health knowledge, health body weight control, cancer prevention, mental health, health counseling, epidemic infection prevention and safety communities. Totally 205 activities was held with 12,737 participants. Compared with last year, the activity grew increased 2.6% and satisfied rate reached 95%. We cooperate with 27 organizations and 281 volunteers to establish health stations which serviced 29,761 people.

#### Conclusions

Via the Community Health Promotion Committee for the various agenda on health promotion, it has close linkage between government, hospital and community. The health policy was achieved more rapidly, efficiently, and extensively. We will invite more groups joining 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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Promoting community health by improving health literacy through a local education network

### WONG Toh Yoon, TATEISHI Junko, MURATA Hirohiko

#### Introduction

To push for behavioral changes that are important to achieve a healthy community, public education to promote health literacy is indispensable. Our hospital, which caters to a community of more than 250,000 people by providing services ranging from acute care to rehabilitation programs, have been actively collaborating with the local public administration to support health literacy since 2011. By partnering with other neighboring institutions, we established an education network that regularly

provides seminars and other resources on extensive health topics.

#### Purpose/Methods

In this presentation, we aim to describe and evaluate the progress of our health education network. Using questionnaire surveys, we also review public feedback towards the activities carried out through this network.

#### Results

From 2011 to 2015, we conducted a total of 54 seminars with a total of 1660 participants. Programs included current health issues such as Cardiovascular Disease Prevention, Alcoholism, Tobacco & Health, Children's Health, Dementia and Radiation Exposure. The seminars were conducted by healthcare professionals with active Q & A sessions. Partnerships were established with different institutions to maintain our education network. From questionnaires collected, feedback has been overall positive with more than 80% of attendees reporting satisfaction with the programs provided.

#### **Conclusions**

Although various statistics and reports have showed Japan to have the highest life expectancy in the world, maintaining healthy aging is still a strong challenge. Health promoting hospitals need to actively promote health literacy to improve the health status of the communities they serve. The education network we established received positive feedback from the public and we believe it contributes to nurturing a healthy community.

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## Needs assessment of Age-friendly city-A case study of Hsinchu city in Taiwan

#### **HUANG Hsiao-Ling, YANG Chin-Mei**

#### Introduction

As the population of Hsinchu city is constantly increasing in age due to the progress of medicine in the prevention and treatment of diseases, making communities better, healthier and safer places for older adults to live and thrive is important. Therefore, developing an age-friendly city has become a significant issue for public and social policy in Hsinchu city.

#### Purpose/Methods

To explore the needs of older people living in Hsinchu city across eight dimensions which are optimizing opportunities for security, health and participation, the features of age-friendly cities in eight domains of urban life: outdoor spaces and buildings; transportation; housing; social participation; respect and social inclusion; civic participation and employment; communication and information; and community support and health services

#### Results

The older people living in Hsinchu city consider the most unsatisfying aspect of these eight dimensions is "outdoor spaces

and buildings", the second aspect is "transportation", and the third is "social participation". Furthermore, the older people living in Hsinchu city suggest improving the quality of life in the areas of "outdoor spaces and buildings", "transportation", and "education and health services" subsequently.

#### Conclusions

The result of this study can be used by government to make improvements in Hsinchu Citv.

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The effects of multidimensional educating programs on health-promoting lifestyle, happiness and gerotranscendence perception in community-dwelling older adults.

#### TUNG Lung-Sheng, CHEN Shu-Chuan

#### Introduction

The purpose of this study was to examined and compare the effects of multidimensional educating programs(MEP) on health-promoting lifestyle, happiness and gerotranscendence perception in community-dwelling older adults.

#### Purpose/Methods

A experimental study was conducted to evaluate the effect of a 12-week community multidimensional educating programs in older adults. A sample of 92 older adults were recruited from community centers in Southern Taiwan. Subjects who fulfilled the inclusion criteria like who have scored less 5 on Geriatric Depression Scale (Sheikh et al., 1986), aged over 65 years or above, adequate vision and hearing. The participants were divided into either a intervention group (n=46) or a control group (n=46). The questionnaires were assessed at the first week and repeated 12-weeks. The intervention group attended a 60minute multidimensional educating program once a week for 12 weeks, while the control group maintained their activity in the community center. Instruments include the demographic data, health status ,Geriatric Depression Scale short form Chinese version, the Chinese version of the Health-Promoting Lifestyle Profile (HPLP), Chinese Happiness Inventory short form(CHI short version), and Gerotranscendence scale(GT).

#### Results

At baseline both groups were not significant difference in their characteristics. Study results indicated that a significant group×time interaction was seen in CHI(p<.05), Nutrition(p<.0001) and GT-Cosmo level (0.01). The study findings revealed that the multidimensional educating programs(MEP) were effect in improving elderly health promotion knowledge. The within-group analysis showed that the score of Chinese Happiness Inventory significantly increased between two groups(3.28% increase, p<.05). The differences of score of HPLP-subscale nutrition in change over time significantly increased between-groups(1.63% increase, p<.0001), and the score of GT-

subscale Cosmo level in change over time significantly increased between-groups(2.74% increase, p<.001).

#### **Conclusions**

The research findings revealed that multidimensional educating programs(MEP) were effective in improving elderly health promotion knowledge ,happiness status and the Cosmo level of Gerotranscendence. The positive effects of this study could be imply to the health promotion of older adults in community.

#### Comments

The results could be used as a reference in future health promotion education in the community.

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## Experience sharing of creating active aging of the elderly community in Longci area of Southern Taiwan

### BIE-CHING Liu, MEI-HUI Wu, GE-LIN Chiu, MEI-JEN Chang

#### Introduction

Longci District is one of remote areas with seriously aging population in Taiwan. The ≧ 65-years-old population is accounted for 22.8%. The survey found that Longci area accounted for 87.1% of normal elderly and 12.9% of disabled elderly. 11.1% of disabled elderly were in need of meal delivery service, indicating that there were more healthy elderly than disabled elderly. The meal issue of the elderly is troublesome to some families. Therefore, promoting meal delivery service is crucial to Longci area.

#### Purpose/Methods

National Cheng Kung University Hospital recruited local resources and training of elderly volunteers to set up the "Fu-Lu Diner" in Longci area. The average age of the volunteers was 74 years old, and the maximum age was 91 years old. Under professional nutritionist counseling, the volunteers had learned to cook and delivery the meals. This activity encouraged the normal elderly to get out of the house and deliver meals to the homes of the disabled elderly.

#### Results

From October, 2013 to the present, "Fu-Lu Diner" provides lunch twice a week. Each meal delivery served 90 people averagely. The press in Taiwan reported the active aging activities in Longci area and other areas with aging population had followed.

#### Conclusions

The meal delivery service provided by "Fu-Lu Diner" echoed the concept of active aging of WHO and encouraged a group of elderly people volunteered into community service. The disabled elderly who accepted the meal delivery service were able to age healthily in their own homes instead of living in the nursing homes. "Aging at home" is the ultimate purpose.

#### Comments

National Cheng Kung University Hospital in response to the Government to promote "active aging" issue was in collaboration in Longci. This successful experience could be used to promote "active aging" in future.

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## Strengthening the elder social support in Quchi community by handicraft lessons

#### RONG-YAUN SHYU, SHU-GUEI WANG, HAO-WEN LIU, BIN-HAN HUANG

#### Introduction

According to the data of National Statistics, R.O.C., The population of the elders (aged 65 and over) in 2003 is 9.2% and increased to 11.2% in 2012, with fast-growing advances in medical technology. Until now, the life expectancy of female elder is 82.74 years old and male elder is over 75.96 years old. For this reason, both problem of medical resources and the elderly mental become more and more important. Consequently, how to make sure the quality of life becomes a crucial issue.

#### Purpose/Methods

Combining resources from Taipei Tzu Chi Hospital, local health bureau, and local communities, we arranged handicraft art lessons for elder and trained community volunteers to teach those lessons. From October 25th to November 15th 2014, the handicraft lessons had been held for four consecutive weeks. Course contents included beads, key ring and adornment, and it was combined with the local lifestyle and religion (such as Christmas tree). In this participatory action research, we used questionnaire to assess elderly satisfaction.

#### Results

We trained totally 6 community volunteers to become trainers during 4 weeks. The average number of participants without community volunteers is 19. Activities satisfaction is 97.5%. Distribution of ages is from 65 years old to 100 years old. The percentage of continual participation from first class is 89.8%. After 4 weeks handicraft lessons, to encourage the elderly to interflow with other community elders, we combine the exhibition with charity bazaar held by local government, and donate all income to local charity. After the charity bazaar, we find the high score of self-identity group is 85%; willing to continue Handicraft lesson is 96%. The result shows elders' self-identity score is higher the consent of the community involvement is higher.

#### Conclusions

Aging population is one of the challenges in Taiwan because of not only the increasing life expectancy but also the low-birth rate. This study shows the elders increase their self-identity, feel needed by society, and have higher willingness after participating in the community activities.

#### Comments

Aging issues is a very important issue. Community health issues will change with the time, population structure, and other factors. Moreover, new health problems always come. This study still needs to monitor the situation after community receive the empowerment.

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## The effectiveness of health promotion for the elderly through home visiting program

#### CHERN Meei-Ling, HUANG kai-wei, LI Jheng-Feng, HUANG Hui-Chen, JIAN yachen

#### Introduction

In Taiwan, Health promotion activities in rural communities are usually organized in the form of health educations in the community centers or temples. Most participants are target fixed by the healthy elderly. This study is aimed to explore the "home visiting" model is able to deliver health promotion services to those who are the handicapped or the elderly. Furthermore, we can assist them to prevent diseases from becoming serious by diagnosing and treating them at early stages

#### Purpose/Methods

Home visiting health promotion program is conducted by the model of "Welcome Doctor to My Home". We will go to cases' home led by community volunteers and do the following: 1. to talk about a healthy lifestyle and understand the physical condition, 2. to measure blood pressure and do physical assessment, 3. to provide relevant health education information, 4. to offer contact number. If diseases are found but not receive treatment, we will be helped to seek the proper treatment.

#### Results

There are 1407 elderly had received home visiting health program during January to November in 2015. It is found that 46 elderly suffering diseases and were assisted to get treatment early in the hospital.98% of them agreed that health education through home visiting model is helpful. 62% of them were to develop healthy eating and exercise habits.

#### Conclusions

It takes time and manpower for doctors and nurses to be out of hospitals and get into family for home visiting. Through home visiting to understand elders' living behavior, not only to provide individual health promotion activities, but also to strengthen the health education opportunities for vulnerable elder. The concept of self-care should be provided in elder to be able to make healthier.

#### Comments

In Taiwan, 12 percent of population is aged 65 years and over. Taiwan has become an aging society according to the definition of WHO.The older population will keep growing year by year.Policy for enhancing old people's health education and execution should consider to be held at cases' home as well. Community volunteers should be continuously trained to jointly promote the health of the elderly.

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#### Development of Indicators of Agefriendly City in Taiwan

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#### Introduction

World Health Organization (WHO) has made major efforts on promoting ageing-friendly city because the world's population is fast growing and aging. All cities and counties in Taiwan are trying to identify their own characteristics for each domain of age-friendly city, but the indicators are quite different among cities. Thus, it lacks of standardized way for assessment. The purpose of this project is to establish the local indicators measuring the age-friendliness of cities for monitoring and evaluating their sustainable development and effectiveness.

#### Purpose/Methods

We followed the procedures proposed by WHO to select global age-friendly indicators that include complex, dynamic and multi-dimensional concept. The procedures include 3 council groups meetings, a survey of experts in three council groups, a survey of experts in the related fields and representatives of elderly groups, a meeting with representatives of local government, and a council meeting with all experts in three council groups.

#### Results

After literature review, 75 indicators were pooled in the master list and shortened to 52 indicators. Then, all experts were asked to evaluate the indicators based on criteria of measurability, validity, and replicability. A total of 38 indicators was selected. After the survey of experts in related fields and representatives of elderly groups, the number of indicators was shortened from 38 to 28. Details of these 28 indicators will be presented.

#### **Conclusions**

We have followed the procedures proposed by WHO to develop Taiwan age-friendly city indicators. The 28 indicators, including 21 core ones developed by WHO, could be used to evaluate the level of ageing-friendliness for every county in Taiwan. Along with the data of 28 indicators, the national survey of satisfaction regarding ageing-friendly city will be conducted to understand the subjective perception on ageing-friendly city in elders. Then, we will provide recommendations for policy makers on establishing an inclusive ageing-friendly environment.

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## Psychological Intervention for Active Callers from Traditional Old Communities in Taipei

#### FANG Chun-Kai, HSIAO Hsueh-Wen

#### Introduction

In eastern culture, it's difficult for people who suffer from psychological distress to search help actively. The three districts in west Taipei are traditional old communities, including Datong, Wanhua, and Zhongzheng districts. It's not easy for citizens to search psychological intervention in the three districts. MacKay Memorial Hospital is the oldest hospital in Taipei and is not in those districts but is beside in Zhongshan district. The project wanted to service active callers who lived from traditional old communities in Taipei.

#### Purpose/Methods

The project was supported by Taipei City Government. MacKay Memorial Hospital is the medical center and provides medical services there over 100 years. MacKay provided two models for active callers in the three districts. First, if some citizens wanted to get psychological counseling, MacKay would provide individual counseling or family therapy. Second, if some wanted to learn some skills to reduce psychological distress, MacKay would provide educational groups.

#### Results

There were 32 citizens (F: 20; M: 12) calling for psychological help. We provided 201 individual counseling and 20 family therapy. 11 of them were adolescents, and 1 was an elder. The satisfaction was 4.39/5.0 after the psychological intervention. At the second part, there were 20 citizens want to learn some skills. We provided 3 different courses for them, including emotion regulation groups (8 times, 7 persons), adolescent growth group (6 times, 9 persons), and suicide survivor groups (6 times, 4 persons). All satisfactions were over 4.0/5.0 after attending the groups.

#### Conclusions

Even in a big city, there are still some people feel stigma if they search psychological services in their communities. Going to the close institute around their communities for searching help is less stigma for them.

#### Comments

How to promote people who have traditional idea about anxious to search for psychological distress is important. The project is a good model before the stigma disappeared.

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By health promotion behaviors to evaluate for the elders in community care centers and enhance with the results of health education programs

#### LIN Wei-Chen, CHIU Po-Hao, YEH Hung-I, CHANG Ya-Wen, CHEN Hsin-Yung, TUNG Szu-Chin, TSAI Cheng-Ho, LEE Shu-Chen

#### Introduction

According to World Health Organization, Taiwan is an aging society and it's the world's fastest ageing country. Taiwan Foundation of Geriatric Emergency & Critical Care is devoted to health promotion and health education for the elders. The main purpose of this paper examines the impact factors on self-rated health status and satisfaction among the elders, as well as to evaluate the effect to health promotion on health education.

#### Purpose/Methods

The purpose of this research is given questionnaire to over age 55 years' elders from five different health care stations in Taipei. There were 250 questionnaires delivered and 165 copies are valid, the response rate was 66%. The date collection period was between Jan. 1th to Nov. 30th of 2015. The questionnaire was conducted content validity and expert validity.

#### **Results**

Over 40% of elders have got over-weighted and obesity issues. The top three health needs topics are healthy diet、regimen and cardiovascular disease. The affecting factors analysis shows:satisfaction and marital status; perceived health status and marital status, educational attainment, BMI; operating health promotion and educational attainment, regional environment have significant difference. Perceived physical health status, mental health status and better life index have significant positive correlation. After implemented health education, utilized health promotion behaviors evaluation indicator on regular exercise, blood pressure measurement have statistically significant improve.

#### Conclusions

Obesity was the main issues of health promotion and health education. The health needs assessment on health education for the elders has significant improved on operating health promotion. The satisfaction and self-rated health status were highly confirmed, it shows Taiwan Foundation of Geriatric Emergency & Critical Care has been promoting health promotion and health education success fully.

#### Comments

It is recommended that the elderly health care stations could be expanded, for solving the impact on aging society and health problem as well as carry out holistic health care in Taiwan.

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Possible Clinical impact of the new Cost-effective osteoporosis treatment thresholds in Greece.

#### BAKIDES Sofoclis, PETROULIA Ioanna, BAKIDES John, KOSMETATOU Maria, KOUSHITASHVILI Nino, SAKELLARIADIS George

#### Introduction

Osteoporosis-related fractures cost, in the European Union alone is over 37 billion euro each year .The majority of these patients are neither assessed nor treated and there is an increased health care cost and mortality rate. All the afformentioned are valid, especially for Greek women residing in remote villages. It is difficult to access these women and perform the FRAX tool to implement the 2015 cost-effectiveness osteoporosis treatment thresholds after the ongoing socioeconomy crisis .

#### Purpose/Methods

To estimate any changes after performing osteoporosis screening in 250 Greek women ,aged 40-84 years.taking into consideration the new Cost-effective osteoporosis treatment limits in Greece for FRAX algorithm :10-year probabilities for hip ( H #) and major osteoporotic fractures (M.O.P.#) of 2.5 and 10 %, under the age of 75, while for older persons, the relevant thresholds are 5 and 15 %, respectively.(instead of 3% and 20% established limits in the USA and Greece till 2015).

#### Results

Mean age was 61,73 years and mean BMI: 27,4 kg/m<sup>2</sup>.

#### **Conclusions**

This subset's study revealed that the threshold lowering has no clinical impact on persons aged 40-49 .For those aged 50-64 and 65-75 the new M.O.P.# value permits 16.8% and 46,5% respectivelly more patients' cost effective evaluation. The thresholds for persons over 75 rases some questions for their 11.1% for H # . It is obvious that we need researches respecting the local economic and epidemiological data to fulfill the goal <think globally but act locally >

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## The Prospect of Breast Cancer: The Problems of Tracking Mammography Anomalous Cases

#### LIU Pei-Lan, PAI Hui-Wen

#### Introduction

In terms of incidence of female cancers worldwide, breast cancer is on the top. Taiwan's National Health Department provides women over 40 years old with free mammography to detect and treat breast cancer at an early stage. However, not all of abnormal cases return to hospitals as expected. In women, breasts are considered important sex organs with the function of producing milk, and cancer is misconceived as incurable disease. It's noteworthy why breast cancer patients aren't return for further diagnosis.

#### Purpose/Methods

In this research, we tried to find out the obscure meanings in which breast cancer patients intentionally dodge the further treatment. Cancer-screening Case Managers play an important role by providing experience about tracking specific patients who were unwilling to cooperate with health professionals. Based on the interviews records of 57 cases, we coded and furtherly analyzed the verbatim drafts, to interpret the nature of problem, and ultimately to find out feasible solutions.

#### Results

1. Short of Health Vigilance: Anomalous cases show lukewarm response to the breast cancer screening results and making use of business or negligence as excuses to avoid further diagnosis.

2. Afraid of facing the truth: Patients who misunderstand cancer as the equivalent of death or equate breasts with female symbol can't rationally face the first screening result. She is so anxious and depressed that any alibi could be used to refuse reexamination.

#### Conclusions

This research shows that women's reaction for mammography abnormalities is either overacted or careless. For the purpose of "Early Detection, Early Treatment", we need continuously to intensify the advocacy of breast cancer prevention. All the myth about breasts should be removed, and ultimately, rehabilitate the correct images of female breasts.

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## Oral Cancer Screening in high-risk drinking populations for alcohol driving violations

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#### Introduction

Oral cancer is currently a major global health issue. In Taiwan, oral cancer has also been one of the top 10 causes of death from cancer since 1991. A case-control study showed that the incidence of oral cancer was 123-fold higher in those who smoked, drank alcohol, and chewed betel quid than in abstainers in Taiwan. Primary prevention should initiative oral screening of high-risk drinking populations in the community so potential oral cancer can be detected as early as possible.

#### Purpose/Methods

The aim of this study was oral mucosal examination (OME) screening to primary prevention oral cancer in alcohol driving violations populations. This study was conducted in Kaohsiung Municipal United Hospital. Participants educated about Traffic Safety Lecture in the Health Bureau and the Motor Vehicles Office were eligible for enrollment in current study. All the examination and questionnaire were performed by physician

had received OME trained. Participants were asked to describe their personal habits including smoking and betel quid chewing.

#### Results

We analyzed the records of 398 habitual drinkers who alcohol driving violations (male: 372, females: 26). All habitual drinker participants were including 206 smokers (52%), 12 betel quid chewers (3%), 142 smokers and betel quid chewers (36%). There were 32 male participants (8 %) having positive effect with oral mucosa abnormalities. Among OME positive effect, 19 participants (59%) were habitual drinkers and smokers, whereas 13 participants (41%) were habitual drinkers, smokers and betel quid chewers.

#### **Conclusions**

We attempt to integrate the resources from hospital to community. We recommend those habitual drinkers who are habitual cigarette smokers and betel quid chewers undergo oral mucosal examination screening regularly so that potential oral cancer can be identified as early as possible.

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## A study of Colon cancer impact by "Tomo" group in our hospital

#### KATAKAMI daisuke

#### Introduction

There is a "Tomo" group in our hospital that has been spontaneously planed and managed of the local residents. "Tomo" members visit our hospital as a primary care hospital and we offer discounts on health checks for them. Though it is assumed being a member contributes their health promotion, we haven't investigated whether being "Tomo" menbers effect on their health. We verified whether there is any relevance in "Tomo" and the early-stage detection of colorectal cancer.

#### Purpose/Methods

In this study, the 259 patients except for exclusion cases that contain recurrent cases and hospitalization in palliative cases were selected from 363 patients admitted to our hospital between 2012 January and 2014 December. We evaluated the effects of "Tomo" on early-stage detection of colorectal cancer in the univariate and multivariate analysis. We were considering the fecal occult blood as screening test as a confounding factor.

#### Results

"Tomo" was 115 cases (44%), non "Tomo" was 144 cases (56%) of the total. "Tomo" was 44cases (38% of "Tomo"), non "Tomo" was 44cases (30% of non "Tomo") of the people who screened the fecal occult blood test as screening test. In univariate analysis, "Tomo" was a significant factor to decrease the stage. (Single regression analysis: Regression coefficient -0.738,SE 0.182,P<0.001)In multivariate analysis, "Tomo" was a factor to decrease the stage and also it was an independent factor for the fecal occult blood test as screening test. (Logistic regression: OR 0.503,95% CI 0.296 to 0.94,P<0.05)

#### Conclusions

We found being a member of the "Tomo" group relates to earlystage detection of colorectal cancer without regard to the fecal occult blood test. The ratio of the "Tomo" group in patients who takes the fecal blood test as a screening test became large. We consider this is because of the privilege of discount health check to the "Tomo" group. We consider this is because patients in "Tomo" group is highly health-conscious through some health activities.

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## " The User Pays" Exercise Groups at the Health Promoting Community in Southern Taiwan

#### LI Chi-Ren, LIN Ching-Cheng, TSAI\* Tien-Sheng, HOU Ming-Feng

#### Introduction

Since 2012, Kaohsiung Municipal Siaogang Hospital have the aerobic fitness classes for people who are hypertension, hyperglycemia, hyperlipidemia or fat (BMI⊇4). We hired a professional coach to lead the members exercising three times every week and to improve/control their blood pressure, blood sugar, or body fat. When the classes were ended, we inspired the members to keep exercising regularly, even if they pay the coach's charge by themselves. Now there are two exercise groups in Siaogang community.

#### Purpose/Methods

The purpose was to promote people, especially which are hypertension, hyperglycemia, hyperlipidemia or fat, more and more healthy by aerobic fitness. At first, we financed the aerobic fitness classes to attract a crowd. That next is to ensure people have regular exercise habits without coaches and funds. But the effect of the exercise without coaches is as limited as the funds from Siaogang Hospital. So we advocate the idea "the user pays" and communicate it to our members.

#### Results

From 2013 to 2015, we have made successfully 2 exercise groups in the community, and there are about 30 members of a group. They exercise regularly two or three times every week and pay a coach one times a week at least. In 2014, we followed 39 members and found the blood pressure, weight, heart and lung power, flexibility and power of muscle of the members were improved.

#### Conclusions

Many kinds of exercise or sports are good for health and we consider the aerobic fitness more helpful. It's easier to raise people's exercising habits than to change their eating habits. The other key-point is to make sure people exercising regularly every week. Resources in the society is so limited that it should be treasured, and people have to know "the user pays". Money spent on exercise is better than on medicine.

#### Comments

Keywords: The User Pays, Exercise Groups, Health Promoting Community

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# **Beyond Weight Loss and Cholesterol Reduction**

### ANG Yen, CH'NG Keat Hui, KRANCARI Molly, LOH Hwa Ling, CHOO Yong Chek

#### Introduction

The impact of obesity goes beyond the physical adverse effects such as diabetes or heart disease. Recent research evidence contends that the quality of life is compromised due to obesity. With about half of the adult population overweight, Malaysia faces huge challenges. There is a lack of scientific and evidence-based weight loss program and credible intervention program addressing the whole gamut of health issues faced by obesity.

#### Purpose/Methods

The purpose of this study is to evaluate the impact of a weight loss program on the quality of life of the obese individuals, beyond the physiological variables. A group of obese /overweight individuals (n= 41, mean BMI 28.63±3.93, mean age 34±7.17) enrolled in a weight loss program designed to address obesity beyond weight loss and cholesterol reduction. It was a 3 full-day education session over 10 weeks, focusing on physical, mental and social-aspect of weight loss. In addition to body weight, blood lipids, fasting blood glucose, we evaluated quality of life using the Medical Outcome Study 36-itme Short Form Health Survey (SF-36), both at baseline and after the 10 weeks intervention.

#### Results

There was 100% weight loss in the group at post-intervention, from 0.8kg (1.3%) to 13.6kg (15.7%), mean weight loss 5.76kg (-7%) of initial weight (p<0.001). About two-thirds (63%) of them lost  $\geq$ 5% of their baseline weight. Important lipid components, fasting blood glucose improved significantly (p<0.001 to <0.05) among 26 participants. Participants improved 6 out of 8 domains of health quality of life as measured in the SF-36 Health Survey: the physical role limitation (mean scores 65.00  $\pm$  40.35 to 90.63  $\pm$  18.51, p<0.0001); energy level (mean score 58.38  $\pm$  14.38 to 67.5  $\pm$  12.04, p<0.005); emotional well-being (mean scores 61.80  $\pm$  13.09 to 68.10  $\pm$  13.51, p< 0.05); social functioning (69.51  $\pm$  17.91 to 86.89  $\pm$  16.52, p<0.001); bodily pain (mean scores 74.02  $\pm$  22.14 to 81.64  $\pm$  15.48, p< 0.05); general health (means scores 60.40  $\pm$  13.43 to 69.34  $\pm$  11.22, p< 0.001).

#### Conclusions

A weight loss program should aim to also address the emotional and social well-being of the individuals, besides kilos and blood profile. Our program helped individuals lose enough weight to achieve physical health improvement (reduced blood cholesterol and blood glucose); it also helped them improve their quality of life at statistical significant level. It is not known if there's any similar evidence-based weight loss program with such holistic

scope ever conducted with the overweight population here in Malavsia.

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# Soap ball phenomenon: a point of view about pregnancy

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#### Introduction

Pregnancy is a "window of opportunity" in encouraging women to activate healthy habits. With the onset of pregnancy the woman enters into a sort of "bubble" that isolates her from the context and helps her to stay away from smoking. At the end of pregnancy (or after finishing to breastfeed) this psychological and organic situation is less present, the "bubble" breaks and the tendency is to return (in high numbers) to prior habits. This phenomenon has been called by Italian scientific team "Sbrogio's soap ball phenomenon"

#### Purpose/Methods

Smoke free mom's (SFM) Italian programme emerged in 2001 as an obstetrical antismoking counseling programme in order to support mothers who intend to give up smoking, with the aims of increasing the percentage of women who do not smoke during pregnancy, and of increasing the percentage of women who quit smoking while pregnant and who do not take it up again following childbirth. Since 2015, SFM belongs to MammePiù. Gaining health in pregnancy: a regional strategy of maternal and child health promotion

#### Results

SFM 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) in comparison to women without professional support

#### Conclusions

In light of the scientific evidence available, in order to make the most of the pregnancy period and stabilise the behaviour, it is advantageous for the woman to be guided through her maternity, even if in a "bubble" which, as mentioned, is destined to burst. With the aim of promoting a healthy lifestyle during pregnancy, data on the effectiveness of psychosocial intervention suggests that such interventions should be implemented for pregnant women, and should include counseling and health education.

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# Effects of small group learning on obese people of a short-term weight loss program

# YANG YI-LING, LIN YU-RU, CHAN YI-TING, OUYANG CHUNG-MEI, LU CHING

#### Introduction

Overweight and obesity related to metabolic syndrome and lots of chronic diseases are major health problems worldwide. Previous studies indicated that promoting health-behavior change including balance diet and active lifestyle were effective on weight control. Additionally, a small group weight loss counseling with the professional tutor as a way of health-behavior promoting were a more effective way than individual treatment in other studies.

#### Purpose/Methods

The purpose of this study was to determine the effectiveness of the short-term weight management program through interaction design courses. Twenty overweight or obese subjects aged 18 to 67 years participated in the summer program of 2015 and 18 of them completed at the end. Weight, waist circumference and percent of body fat changes were calculated. Participants received 8 weight management courses through discussing the diet logs and barriers of choosing low-calorie foods, and 6 exercise classes in two months.

#### Results

All participants (n=18) had a BMI of  $29.9\pm4.2~kg/m2$  in the beginning and  $28.8\pm4.2~kg/m2$  at the end of the program (P<0.001). The median weight loss for all participants was 2.7~kg or 3.4% of initial weight in two months (P<0.001). The median percent of body fat loss was 3.4% (P=0.079) and the median of waist circumference reduction was 8.1~cm (P<0.001). Weight-related nutrition knowledge was increased 11.2% (P=0.009), dietary and exercise adherence were increased 16.5% (P=0.596) and 8.6% (P=0.841) respectively.

#### Conclusions

A regional hospital-based weight management program emphasized on lifestyle interventions through small group education and peer support can result in short-term weight losses. It may also be an effective program for those people who try to learn the recommended skills of weight management and use them practically in their real life.

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Prevalence of Overweight and Abnormal Liver Function among Young Adolescents in Taiwan

LIN Ying-Ching, CHU Nain-Feng, WU Hong-Lien, SHAO Bow-Ping

#### Introduction

Introduction: Overweight and obesity is an important medical and public health issue in Taiwan. About one third women and one half men were overweight or obesity in 2012. Obesity is one of the most important risk factors for steatohepatitis among adolescents. The purpose of this study is to evaluate the prevalence of overweight and obesity among adolescent in Taiwan. We also evaluate the prevalence of abnormal liver function and fatty liver among these adolescents in different weight status.

#### Purpose/Methods

Methods: We conducted a cross-sectional survey for the university freshmen during their routine physical check-up at the first year of admitting school. We measured body weight using standard beam balance scale and recorded to the nearest 0.1 kg and body height using a portable Martin stadiometer and recorded to the nearest 0.5 cm. BMI was calculated using the formula kg per m2. We define overweight as BMI> 24 and < 27 and obesity as BMI > 27. Liver functions as SGOT and SGPT were measured using standard enzymatic methods. A standard structure questionnaire was performed to collect demographic information.

#### Results

Results: There are total 973 subjects (484 males and 489 females, with the mean age of 18.6 YO) were included this survey. The prevalence of overweight was 28.1% (15.4% for female and 30.2% for male). The prevalence of abnormal liver function, high SGOT, was 0.82 and 8.88% for female and male, respectively. For high SGPT, the prevalence was 2.66 and 12.19% for female and male, respectively. The mean SGOT levels was 24.70 $\pm$ 1.10 and 19.08 $\pm$ 052 for overweight and normal weight subjects, respectively (p<0.01). The mean SGPT levels was 28.12 $\pm$ 2.01 and 12.40 $\pm$ 0.36 for overweight and normal weight subjects, respectively (p<0.001). The correlation coefficient of BMI to SGOT and SGPT was 0.46 and 0.26, respectively.

#### Conclusions

Conclusions: In this study, the prevalence of overweight and abnormal liver function among young adolescents was relatively high, especially among males. The overweight adolescents had higher SGOT and SGPT levels when compared with the normal weight. Weight control program should be considered implant earlier for young adolescents even in junior-high and high school students. This program is not only to control body weight but also to prevent the occurrence of obesity-related liver disorders.

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#### **Healthy slimming Together**

CHEN Meng-Chieh, CHEN Yi-Ting, WANG Chiung-Lang, LIU Yi-Lien, FAN Yu-I, LIU Hsiang-Lan, CHIU Mei-Yun

#### Introduction

Create a joyous slimming atmosphere by having people from the community mingle with hospital employees to engage in regular

exercise and a healthy diet in order to gain a healthy posture and lose weight.

#### Purpose/Methods

Summer healthy weight control class is a weight control course that enables participants to reduce weight, body fat, and increase their daily exercise routine. It teaches them to adopt healthy diet and exercise habits and correct inappropriate life style habits to enable them to better control their weight in the future. Participants were given a questionnaire to collect regarding the participants' vital signs, eating and exercise habits and motivations for losing weight before and after the program.

#### Results

90% of the participants in the community group were female, who cited appearance, obesity co-morbidities and self-expectation as the reasons to enroll in the program. According to the results, more than half declared their perceived health status had changed for the better; perception of "sleep Quality had also improved, and participation in and duration of weekly sport sessions was also on the rise. 141 hospital staffs participated shedding a total of 350 kg; 11 participants slimmed to a healthy BMI(<24).

#### **Conclusions**

The program is a hospital-community-wide mobilization to create an environment promoting exercise and healthy habits. The results were used to create awareness about body mass index, the importance of a healthy diet and exercise, and the positive impact of weight loss on fatigue and other diseases associated with being overweight. The hospital's motto is "without happy and healthy employees there can't be happy and healthy patients".

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Investigation on the Effect of Taiwan's Long-Distance Care Services to the Diabetic Patients' Self Monitoring of Blood Glucose in Remote Regions

### **WEN HSI Peng**

#### Introduction

The Department of Community Health of the Mennonite Christian Hospital (MCH) has long been providing medical services touring the mountainous townships such as Wan-Rong and Zhuo-Xi Townships in Hualien. Further, MCH has tailored a long-distance care services model for chronic patients to meet their local demands. By communication and exchange of health care information, hopefully the diabetic patients in said regions improve capability of self-monitoring.

#### Purpose/Methods

Through medical services touring the mountainous townships, we take the patients with conditions of hypertension and diabetes as the potential samples of research. Only after subject

assessments by each specialized doctor, will a specific patient be receiving long-distance care services. The descriptive statistics is constructed based on the measurement frequency and numeric data of each patient.

#### **Results**

It is found in this study that the long-distance care services approach applied herein is helpful substantially to the chronic patients with diabetes, hypertension, and hyperglycemia. After introduction of long-distance care services for 6 months, the average blood pressure reading is dropped by approximately 5mmHg. Also, dysglycemia among diabetic patients decreases by 3%.

#### Conclusions

In current circumstance of poor accessibility and unequal allocation of medical resources in Hualien and Taitung, the application of long-distance care services can continuously monitor the possible development of chronic diseases, simultaneously return abnormal situations, and provide humanity care of health education by the kind-hearted client service center. It is therefore decreasing the anxiety of patients and meanwhile preventing occurrence of complications.

#### Comments

To date, throughout the development of information technology of long-distance care services, it has been found that the acceptance of IT application by the senior citizens remains at a lower degree, manifesting that there leave rooms for improvements in applicability and accessibility of this service model. As a future reference, we may introduce Dr. Jean Watson's caring theory to this approach to identify which care factor(s) enhance the motivation for a participant to use the services.

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Development of diabetes prevention program for people with prediabetes through team-based organization in a Health Promoting Hospital (HPH) of Korea

### NAH Eunhee, PARK Jiyeon, JEONG Soonyoung, PARK Jeungsun, CHU Jieun, KIM Hanna

#### Introduction

Diabetes is the public health problem which needs to be resolved worldwide because of its great negative impact on health. Prediabetes is strong risk factor of developing type 2 diabetes mellitus (T2DM). Many researches have shown that lifestyle changes could be prevent or delay the progression to T2DM. Tight glucose and HbA1c level control can also reduce the risk of developing diabetes. Thus, it's meaningful to share our team approach to T2DM prevention program for people with prediabetes in Korea.

#### Purpose/Methods

This study aims to describe our intervention program for Korean adults with prediabetes starting in 2015 by Korea Association of Health Promotion (KAHP) as a Health Promoting Hospital (HPH). We organized team for development, evaluation, and management of the program. Development and evaluation team with staffs of our head office prepared this study plan. The role of management team with staffs of our branch (doctors, nurses, dietitians, and management coordinators etc.) is recruitment and management participants with prediabetes.

#### Results

It plans on conducting this study over the next 3 years. The participants in this program are 1,200 adults aged from 30-70 with prediabetes. The eligible participants were randomly assigned to either intervention group 1 (IG1), intervention group 2 (IG2), or control group (CG). IG1 and IG2 are offered lifestyle-intervention (diet and exercise) or periodic diabetes screening during the first year, and followed-up the maintenance of the changes after 2 and 3 years. CG received minimal information once a year.

#### **Conclusions**

Forming a multidisciplinary team is important to plan and implement T2DM prevention program successfully. Our program is also highlighted inter-professional collaboration of specialists like as: doctors, nurses, dietitians, and management coordinators etc. KAHP has expected to conduct this program that multidisciplinary partnership from 2015 to 2018 for people with prediabetes. We would plan to do study on the effectiveness of our intervention program.

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# Using multivariate health education intervention to enhance insulin injections rate

# HSIEH Ming-Chuan, CHI Chiang-Shang, SHIH Ai-Wei, CHEN To-Pang

#### Introduction

Previous researches of UKPDS in 1998 indicate that early insulin treatment can improve HbA1c contr.Previous researches of UKPDS in 2013 each 1% reduction in HbA1c was associates with 37% decrease In microvascular disease,14% decrease in cardiovascular disease.We found that it may due to patient's insight,skills,and social or psychological disorders.The purpose of this study is improving patient's willing to receive insulin injection and achieve good glycaemic control by multivariate health education intervention.And then, improve quality of life.

### Purpose/Methods

Type 2 diabetes patients under oral hypoglycemic agents more than 2 types or already receiving insulin injection with HbA1c more than 8.0% in Diabetes Shared Care Network from our hospital.Used face to face two-way interactive health education, held diabetes lectures every two weeks. arranged insulin

treatment-related health education, insulin Injection trying program, and invited well-controlled Cases sharing their experience. Besides, monthly telephone interviews were also arranged to track patient's records of self-monitoring blood glucose, and give appropriate advice at the same time.

#### Results

A total of 123 patients were enrolled in this study.Among 37 insulin-naive patients,32 (86.5%) started insulin injection. Among 86 insulin-treatment patients, 70 (81.5%) increase injection frequency or insulin dosage. The average fasting blood glucose reduced from 223.8mg / dl to 150.4mg / dl, and HbA1c reduced from 10.7% to 8.8%. Both of thereductions achieved statistic significant.

#### **Conclusions**

Multivariate health education intervention can improve insulin injection rate and then improve HbA1C.

#### **Comments**

In this project, we found that a multivariate education intervention can improve patient willingness touse insulin. We should move to make health education morediverse in the future. Having a greater variety ofeducational approaches allows patients with diabetes to gainself-care skills and maintain good blood-glucose control, which then Improve quality of Life.

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## Risk of Postherpetic Neuralgia following Depression: A Nationwide Population-Based Study

# CHUNG Yu-Chi, HU Li-Yu, LU Ti, CHENG Jin-Shiung

#### Introduction

Patients with depression reported more somatic complains, poorer health-related quality of life, and even higher mortality rate. Postherpetic neuralgia (PN) is the most common complication of herpes zoster (HZ). Past studies revealed that psychological stressors may have adverse effect on the development of HZ infection and PN caused by the dysregulated immune response, however, the argument remains controversial. Moreover, there have been no previously studies examining the link between depression and subsequent development of PN.

#### Purpose/Methods

The purpose of this study was to investigate the risk of PN among patients with depression by using the Taiwan National Health Insurance Research Database (NHIRD). A retrospective study has been conducted among 9778 participants (4889 patients with depression and 4889 control patients) who were selected from the NHIRD. The Cox regression model was used to investigate the possibility of increased risk of newly diagnosed PN among the patient with depression during a 13-year follow-up duration.

#### Results

100 (1.97 per 1,000 person-years) patients with depression and 59 (1.11 per 1,000 person-years) matched cohorts were diagnosed with PN. The incidence risk ratio of PN between two groups was 1.77 (95% confidence interval [CI], 1.27–2.48, p < .001). After controlling for confounding factors such as age, sex and comorbidities, patients with depression were 1.48 times more likely to develop PN. Moreover, nephropathy, malignancies, and older age were also independent risk factors among patients with depression.

#### **Conclusions**

Depression was an independent risk factor of developing PN, the symptoms of PN should be noted among patients with depression particularly for those with nephropathy, malignancies, and older age. However, future studies could clarify the mechanism by which physical comorbidities among patients with depression would worsen the PN symptoms. In addition, more potential confounding variables such as family history, substance use and severity of PN should be further considered.

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## Risk of Trigeminal Neuralgia following Anxiety Disorder: A Nationwide Population-Based Study

# CHUNG Yu-Chi, HU Li-Yu, LU Ti, CHENG Jin-Shiung

#### Introduction

Anxiety disorder (AD) is associated with significant impaired quality of life, more somatic symptoms and higher occurrence of chronic pain. Trigeminal Neuralgia (TN) is the most common cephalic neuralgia among older people, which was classified as a neuropathic pain that caused by demyelination of trigeminal sensory fibers. Although study has shown that most of ADs were presented before the pain syndromes, we found that there have been no previously studies examining the association between AD and subsequent development of TN.

#### Purpose/Methods

The study aimed to investigate the risk of TN among patients with anxiety disorder AD by using extracted data from the Taiwan National Health Insurance Research Database (NHIRD). A retrospective study has been conducted among 14536 participants (7268 patients with depression and 7268 matched cohorts) who were selected from the NHIRD. The Cox regression model was used to investigate the possibility of increased risk of newly diagnosed TN among the patient with AD during a 13-year follow-up duration.

#### Results

86 (1.09 per 1,000 person-years) patients with AD and 37 (0.47 per 1,000 person-years) matched cohorts were diagnosed with TN. The incidence risk ratio of TN between patients with AD and matched cohorts was 2.31 (95% confidence interval [CI], 1.55–3.49, p < .001). After controlling for age, sex, comorbidities,

urbanization and socioeconomic status, patients with AD were 2.01 times more likely to develop TN (95% CI, 1.35-2.97, p <.001) compared with the matched cohorts.

#### Conclusions

The nationwide population-based study confirmed that the risk of developing TN is higher among patients with AD compared to matched cohorts. AD was an independent risk factor of developing TN after controlling for a variety of confounding factors. However, more potential confounding variables, such as the presence of HIV, family history and substance use should also be evaluated in the future.

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# The Effectiveness of Using the Community Partnership in a Community Factory Betel Nut Quitting Class

## WANG Hsueh-Yin, LIAO Ching Mien, SHEN Shu-Hua

#### Introduction

Jianan psychiatric center has been cooperated with local health bureau, selected the high betel nut chewing rates in factory and to conduct the betel nut quitting class for betel nut control and health promotion. The purpose of this study was to apply health promotion theory and community partnerships to conduct a four-week of betel nuts quitting class on May 2015, creating workplace culture, thus improving the average monthly amount of chewing betel nut and betel quit rate.

#### Purpose/Methods

The local health bureau and factories nurse has been gathered together, to discuss how to promote a betel nut quitting workplace environment, oral screening and betel nut quitting class, compare the effectiveness before and after the classes, to understand the effectiveness of amount of betel nut chewing and quitting rate after three months of the end of the group.

#### Results

8 non-executives male workers participated. Attendance rate was 81.25%, all participants had the history of chewing betel nuts . The mean age of the participants was 36 . The participants averagely chewed the betel nuts for less 20 years. The average amount of chewing betel nuts is 355 grains a month in pre-test, and declines to 82.5 grains a month in post-test.2 participants totally quitted The completely quitting rate arrives 25%.

#### Conclusions

The use of the community partnerships conduces to promote the environment of quitting betel nuts in the community workplace. By Encouraging the Employees to attend the betel nuts quitting classes, using of health promotion theory and oral screening programs in the class can help the participants to understand the importance of getting rid of betel nuts, and enhance their capability to face the betel nuts situation.

#### Comments

The participants expressed they had more confidence to conquer the betel nuts craving situation after the class. We encourage the case hospital applies the experiences in the future, develop the model of quitting betel nuts in the workplace, help more community workplaces to popularize the betel nuts quitting environment ,and improve the rate of betel nuts quitting.

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Providing More Medical Service For Community Health Promotion -Increasing Sedation For Endoscopic Examination Resources to Serve Community Patient

# CHEN Kuan-Hung, CHUANG Chun-Te, PAN Ju-Shan, CHEN Chia-Ying, HSU Yueh-Han

#### Introduction

Since 2011, gastrointestinal cancer prevalence are higher, especially colon cancer is the 4th prevalence cancer "In top 10 cancers" in Taiwan. Therefore, we should increasing sedation for endoscopic examination resources to reduce colon cancer prevalence for community.

#### Purpose/Methods

We promoted colon cancer prevent and increased two nurses help sedation for endoscopic examination. In addition, we increase examine table, extended the recovery room space from this year to serve more community patient. we also push medical carbon dioxide in patients' abdomen when doctors were examining. It will reduce uncomfortable to patient.

#### Results

Before we increasing sedation for endoscopic examination resources, the service patient had 348 cases. After we did, the amount of service patient had risen to 420 cases. The examination service was risen 72 cases a month. The recovery room space from 30m2 to 58m2. We provide the recovery space for endoscopic examination patient from community.

#### Conclusions

Finally, more community patient accept endoscopic examination after we promoted colon cancer prevent and increased sedation for endoscopic examination resources in community. In fact, we just make control diet and exam health regular, and we will not be afraid of facing colon cancer. After all, keeping providing friendly and health promoting services and pushing community people's health promotion is community hospital's duty and mission.

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Assessing the effectiveness of Korean Health Promotion in terms of preventing or reducing obesity, hypertension, and hyperlipidemia patients among adults

## LEE Ji Hong, KIM Kue Sook, CHOO Daniel, LEE Woo Hyung, LEE Yu Jeong, LE Lai

#### Introduction

Obesity, hypertension, and hyperlipidemia are highly associated with lifestyle such as diet and exercise. The Korean government offered various programs such as regular health assessments and public health education campaigns to reduce the number of these lifestyle disease patients. By analyzing data acquired from the East Seoul Metropolitan Hospital in 2010, 2011, and 2012, we were able to conclude that there has been an increase in obesity, alcohol abuse, and tobacco abuse rates since 2011 due to various reasons.

#### Purpose/Methods

This paper aims to evaluate the effects of annual health assessments and give appropriate feedback. In order to identify the process and types of health assessments and questionnaires, official documents from the Korea Ministry of Government Legislation, Ministry of Education, Korean Statistical Information Service, and the Ministry of Health and Welfare were gathered and utilized.

#### Results

According to the MOHW, obesity, alcohol abuse, and tobacco abuse rates have been steadily increasing every year since 2011. However, an increased number of participants were aware of the hazards resulted from lack of exercise, alcohol and tobacco abuse but was also more exposed to anti-smoking campaigns. Data showed that the contrast was due to two reasons; increase in the older population and increase in adolescence who start smoking and drinking at a young age.

#### Conclusions

Results have proven that an individual with undesirable living habits, such as smoking and drinking, are very likely to affect family members and will maintain their living habits, making it harder for them to recover from lifestyle affected diseases. Therefore, it is advised that the government should strengthen health education aimed at the younger population in order to help them maintain a healthy lifestyle, not only for them but also for their families in order to prevent lifestyle affected diseases.

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The Prevalance of Medicines Used by People in the Community

## YI-LIN Su, HSIU Lu, WEI-HAO Yu, CHIH-CHIEH Chang, JUI-NENG Yang, YU-CHIN Lee

#### Introduction

Because of the complexity of medical practice, drug types and sources of the public use easily lead to confusion, and lack of the information of drug safety, So that people's health due to improper use of drugs and impaired. The prevalence is high of people used medicine, Chinese herbal medicine or health food.

#### Purpose/Methods

This study in order to understand the prevalence of drug use among communities. A cross-sectional study design was conducted in 2015. 200 people of join health promotion activities in community were recruited using convenient sampling from northern Taiwan. Structured questionnaires with Cronbach's  $\alpha$  of 0.92 were self administered by study participants.

#### Results

The results were 50% of people with chronic diseases, 62.8% of people with physical discomfort to the hospital. Over the past year, 67.3% use of medicine, 84.2% for the purpose of the medication treatment; 21.0% had to use Chinese herbal medicine, 67.3% took health food. 76.0% had expired drugs in families, 73.0% had left the drugs.

#### **Conclusions**

Community citizens a high prevalence of drug use, and Some still buy their own. Professionals can enhance the medication safety of health education, and established the correct information pipeline, to avoid inappropriate medication health hazards.

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# Used Multidisciplinary Collaboration to Promote Medication Safety among Home Care Clients

### YI-LIN Su, YIN-JU Chen, PEI-LAN Lin, WIN-LIN Lu, PEI-YUN Yen, CHIA-MIN Lai, MEI-CHIUNG Fu

#### Introduction

Clients who receive home care may have duplicated medications which upon ingestion may create negative medicine interactive effect. These clients may have a history of many chronic diseases, requiring multiple medications. They usually have follow ups not only in one out-patient department and one hospital but many.

#### Purpose/Methods

The purpose is to increase th medication safety among home care clients. we suggest to: 1) provide a multidiscipline case conference to discuss the medications of the clients; 2) increase the frequency of medication checks by registered nurses; 3) provide a list of medication interactive effects; 4) request different medications for the clients who demonstrate

interactive effects, 5) visit home care clients together with pharmacists. After implementing the above strategies, and 6) designed drugs health education leaflets for foreign language.

#### Results

The results were 165 clients, the cognitive correct rate of primary caregivers were 95%. There are 4 cases were due to drug side effects, medication non-compliance, not milling the drug, after a proposal to adjust the prescription status of physicians that is improving.

#### Conclusions

The safety of medications use among home care patients was improved as well. Primary caregiver significantly improved medication safety awareness, it is very important to use multidisciplinary collaboration to promote medication safety among homecare clients.

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# Service Design for the Prevention of Noncommunicable Diseases: A Health Self-check-up Concept

#### **PÖLÖNEN Auli**

#### Introduction

A number of noncommunicable diseases (NCD) cause increasing health problems in Finland and worldwide. Randomized clinical trials have shown that, for instance, type 2 diabetes can be prevented or postponed by rather modest lifestyle changes. The challenge is that there are several risk factors to overcome, and there is no one-suits-all model. Conflicting messages concerning healthy life style, especially diet, counteract the evidence-based recommendations. There is need for developing new tools for health promotion and lifestyle modification support.

#### Purpose/Methods

The aim was to develop a new NCD prevention service design for public health care organizations in Pirkanmaa, including an evidence-based health check-up tool for public lounges. The service was developed by a cross-organizational multidisciplinary team based on the current care guidelines and the national recommendations of nutrition and physical activity. A pilot was carried out in 2009. The developed material has been annually updated, and distributed free of charge to the participating organizations.

#### Results

The developed service design encompasses both public and professionals: We provide self-service check-up corner material packages with 40 pages of printed materials in browsing racks, 11 screening tools, and a poster. For professionals, we provide education, network events, and material updates. The feedback has been consistently positive. The material is in use in all (23) health care centers/municipalities in Pirkanmaa, in hospitals, and in some patient organizations. It is also successfully used in health events.

#### **Conclusions**

There is an obvious need for up-to-date, evidence-based material for health promotion and the prevention of NCDs edited for every day practices. Continuous expert support is crucial even for well-educated health care personnel because of the multifactorial nature of NCDs. Customer-oriented service designs based on cross-organizational multidisciplinary regional collaboration greatly enhance the capacity building for health promotion and the prevention of NCDs.

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# The Active Role of Nurses for a Wound Care Training Program and Empowerment-based Health Promotion Service

### TZU-LING WU, WEN-CHIEN YANG, SSU-YUN HUANG

#### Introduction

A short-term health promotion empowerment model was set-up by our hospital in Ladakh area of northern India since 2012. The basic health service was delivered by the health-worker in the self-operated dispensary in local schools. Our field investigation revealed the wound cuts was the most common health problem in children. Therefore, the nurse designed the training program to enhance their ability of wound care to prevent further complication in a boarding school.

#### Purpose/Methods

First of all, we introduced a serial lessons including basic knowledge of wound care and feasible medications. The program focused on the demonstration of standardized procedure and basic knowledge of wound care. We also supervised the practicum of wound care in daily practice and had interactive case discussion. Due to lack of human resources, we also invited not only health-workers but also senior students in school. Our goal is to empower them to practice well and manage the wound correctly.

#### Results

We recruited some health-workers and some senior students, who were called "little helpers". The nurses instructed them to perform wound care by standardized procedure. We also set up some portable "First Aid Boxes" in the dormitory to tackle wound hurts during out-of-school time. When any child got hurt, the little helpers joined the team and learned wound care under the supervision. After the training, all health-workers and senior students had confidence in wound care.

#### **Conclusions**

The role of nurses in short term empowerment-based health promotion service could be more active. More than providing service, nurses could help and teach the students to do the wound care well. We would like to expand this model to other schools and community for the basic health needs. In future, we would design the evaluating tools to measure the little helpers'

capacities and quantify the effectiveness of this program based on the empowerment model.

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# Assessment of Health Services and Policies at Royal Melbourne Institute of Technology in Vietnam

## LE Lai, KIM Kue Sook, LEE Ji Hong, CHOO Daniel, LEE Woo Hyung, LEE Yu Jeong

#### Introduction

Health promoting schools, according to the WHO, are schools that strengthen their capacity as a healthy setting for living, learning, and working and secure holistic management of physical, mental, environmental, and behavioral aspects for students. Continued research has shown that the school of interest, Royal Melbourne Institute of Technology in Ho Chi Minh City, Vietnam, offers a wide range of health services and programs that covers mental, physical, and sexual health, but lacks a standard of immunization for its students.

#### Purpose/Methods

The goal of this project was to identify and assess the effectiveness and methods the school utilizes for health promotion. The research was carried out at Royal Melbourne Institute of Technology (RMIT) in Ho Chi Minh City, Vietnam. It was conducted by checking campus facilities, observing student's stay in the school, identifying health services and programs, and evaluating student perception of the school's health initiatives.

#### Results

RMIT health services range from giving general information of self-physical and mental care. Extensive information about ways to remain physically active is supplied in the form of yoga and sports classes on campus. Psychological counseling by appointment and for emergencies are readily available for students as well ranging from depression, separation anxiety, identity concerns, stress management, drug and alcohol management, etc. Medical treatment and consultation is available. However, the school does not require a standard list of immunizations.

#### Conclusions

The Royal Melbourne Institute of Technology offers a wide range of health services and programs. However, the lack of standardized immunizations for members of the school communities can possibly jeopardize the overall health of the student body as well as the faculty and staff. Therefore, we suggest for a unified assessment form for universities that will help schools promote public health and reinforce preventative measures against global epidemics.

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# **Evaluation of Health Programs and Services of MCPHS**

## LEE Ji Hong, KIM Kue Sook, CHOO Daniel, LE Lai, LEE Woo Hyung, LEE Yu Jeong

#### Introduction

Health promoting schools, according to the WHO, are schools that strengthen their capacity as a healthy setting for living, learning, and working and secure holistic management of physical, mental, environmental, and behavioral aspects for students. Continued research has shown that the school of interest, Massachusetts College of Pharmacy and Health Sciences offers health services that include counseling and medical services. However, the school does not offer information about alcohol or drug abuse prevention, exercise regiments or plans. or diet consultation.

#### Purpose/Methods

The goal of this project was to identify and assess the effectiveness and methods the school utilizes for health promotion. The research was carried out at Massachusetts College of Pharmacy and Health Sciences located in Boston, Massachusetts in the United States. It was conducted by checking campus facilities, observing student's stay in the school, identifying health services and programs, and evaluating student perception of the school's health initiatives.

#### Results

The Massachusetts College of Pharmacy and Health Sciences offers appointment based counseling services for the mental health care of students that included stress management, sexuality, cultural issues, eating disorders, anxiety, depression and many more. The school has an immunization standard that matched those of US guidelines. However, it did not offer information about nutritional or diet plans or health programs or classes for physical activity. Details about alcohol and drug abuse prevention programs are not listed or described.

#### **Conclusions**

Results show that the Massachusetts College of Pharmacy and Health Sciences offer extensive services in terms of medical and mental health. However, it lacks a health services program that covers physical activity, nutrition and diet, and alcohol or drug abuse prevention. Therefore, we suggest for a unified assessment form for universities that will help schools promote public health and reinforce preventative measures for better health care for students and campus community members on a larger scale.

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Improvement of Brown University Health Programs and Services in Providence, Rhode Island

## CHOO Daniel, KIM Kue Sook, LEE Woo Hyung, LEE Yu Jeong, LE Lai, LEE Ji Hong

#### Introduction

Health promoting schools, according to the WHO, are schools that strengthen their capacity as a healthy setting for living, learning, and working and secure holistic management of physical, mental, environmental, and behavioral aspects for students. Continued research has shown that the school of interest, Brown University, offers a wide range of health services and programs that covers mental, physical, and sexual health, but fails to offer the campus community dietary regimens or counseling based on need.

#### Purpose/Methods

The goal of this research is to assess effectiveness and identify methods the school utilizes to promote student health in the area of Providence, Rhode Island. In order to identify methods and programs that the school provides as an effort to strengthen its capacity as a healthy environment for students, we asked the school to check relevant facilities, list departments for health-promoting purposes, and ran evaluations through present students on their experiences and reflections.

#### Results

The school had extensive information and services available for it's students that encompassed sexual, LGBTQ, nutritional health and alcohol and drug abuse prevention. Services such as free HIV testing and psychological counseling for mental health services were offered. The school invested in health rewards programs that offered staff and faculty with bonuses up to \$250 for enrolling in exercise or tobacco addiction prevention programs. However, there was a lack of nutritional consultation and exercise programs for students.

#### Conclusions

The university actively encourages students to take care of their health by offering free HIV testing, psychological sessions, health promotion text service, and more. Results have shown that the university dedicates resources to take care of faculty/staff. However, when observed on a national and global level there are standards that are not uniform and services that are not provided. Therefore, we suggest for a unified assessment form for universities that will help schools promote public health and reinforce preventative measures.

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Health Information Learning Class by a Pharmacy Is Effective to Improve Health Awareness among Community

HIROTA Noritake, INAGAKI Mayumi, UTSUNOMIYA Reiko

#### Introduction

Aozora Pharmacy has promoted activity to be a Health Promoting Community Pharmacy rooted in community since its opening of November 1990. Since 2007, it has organized semi-annual Health Information Learning Class for customers of pharmacy and residents of community. After introducing the class program and evaluations from the participants, future challenge of this activity is examined.

#### Purpose/Methods

Participants evaluated the program at the end of the learning class (5 points score). In the latest two classes, additional research was made on the following three items. 1) Evaluation of the idea of pharmacy publishing health information to community. 2) Contents of health information published by pharmacy. 3) Information media for publication by pharmacy.

#### Results

During 1st class (August 2007) to 17th class (September 2015), 365 people in total have participated. Participant's evaluation averaged 4.4. Highly evaluated themes were metabolic syndrome (4.9), OTC drugs (4.8, 4.7) and poultice (4.7). According to the latest two researches, 55 (average age 70.9) responded. About the pharmacy published health information, all evaluated "Good". Favored information was drug safety (37), pharmaceutical products effectiveness (33), health (31), and disease (27). Preferred media was printed materials (30) and website or e-mail (10).

#### **Conclusions**

The learning class provided by Aozora Pharmacy since 2007 for customers of pharmacy and community residents has become a stable practice, and highly appreciated by participants. There is a high expectation for the pharmacy to give out information not only on pharmaceutical products but also on diseases. Currently, printed material is more preferred as information media, because many of the participants are old. But a usage of electronic based media needs to be considered more seriously for the future.

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# The Knowledge and isolation skills practice Effects of Multi-Approach Health Education for caregivers

# CHEN Chiu-Yen, WENG Jia-Yu, CHEN Chen-Fang, WU Li-Chu, CHOU Hsueh-Chih, CHENG Jin-Shiung

#### Introduction

In infection ward, there are average 10-15 patients, requiring contact isolation, due to the fact of multiple Drug-resistant strains of colonization or infection. However, some caregivers rotated frequently and some foreign caregiver, which was not familiar the language, could not always obey those method. Thus, the adherence to contact isolation was inadequate. To response the requirement of caregivers, variety of health

education reminder, promotion and teaching strategy were proposed. In expectance to improve the compliance, the knowledge and SOP.

#### Purpose/Methods

Trained nurse could provide patient, caregiver and attedant with various tools in different language, including (1) "washing hands", "contact isolation strategy ", "isolation precautions" video, tape and poster. At the same time, satisfaction and confidence was assessed by means of questionaire.

#### Results

From 3/24 2015 through 6/2 2015, a total of 44 was enrolled, including families, caregiver and attandant. After those strategy, the overall satisfaction was 4.75 points and 43 caregivers (97.73%) can engage daily life.

#### **Conclusions**

Via variability of tool, repeated video, it can enhance learners' knowledge and skills, improve the confidence and satisfaction. Trained nurse also provide fan-like reminder. After patient are dishcarged, caregiver could keep offering intact home care. Health promotion might be achieved.

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# Assessing and improving public health education in HKUST

## LEE Woo Hyung, KIM Kue Sook, CHOO Daniel, LEE Yu Jeong, LEE Ji Hong, LE Lai

#### Introduction

Health promoting schools, according to the WHO, are schools that strengthen their capacity as a healthy setting for living, learning, and working and secure holistic management of physical, mental, environmental, and behavioral aspects for students. Continued research has shown that the school of interest, HKUST, offers a wide range of health services and programs and systematic physical education courses. However, the school offers insufficient information regarding sexual health and nutrition.

#### Purpose/Methods

The goal of this research is to assess effectiveness and identify methods the school utilizes to promote student health in the area of Clear Water Bay, Hong Kong. In order to identify methods and programs that the school provides as an effort to strengthen its capacity as a healthy environment for students, we asked the school to check relevant facilities, list departments for health promoting purposes, and ran evaluation through present students on their experiences and reflections.

#### Results

Hong Kong University of Science and Technology had extensive information and services available for its students that encompassed mental health, drug abuse, and physical activities. Resources were also designated towards keeping staff and faculty fitness and wellness rewards programs to incentivize

health maintenance. However, there was a lack of nutritional consultation and sex education for students.

#### Conclusions

Results have shown that HKUST actively encourages students to be involved in student health services by offering free seminars that covers a wide range of health related topics and requires all freshmen to take mandatory physical education courses in charge of the Student Affairs Office. However, the university failed to deliver information regarding daily diets and sex. Also, the university did not require any vaccinations prior enrollment of international students. When observed on a national and global level, there were not uniform standards or services. Therefore, we suggest for a unified assessment form for universities that will help schools promote public health and reinforce preventive measures.

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# Developments for specific learning disorders in health care service system

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#### Introduction

Specific Learning Disorders (SLD) include impairment in reading, writing and mathematics. The prevalence of SLDs across the academic domains of reading, writing and mathematics is 5-15% among school-age children across different languages and cultures. Prevalence in adults is unknown but appears to be approximately 4%. (DSM-5, 2013) In Italy, about 1.5 million people, including adults and children, suffer from SLDs; in the first cycle of primary school, 8-10% pupils show some learning-related disorders, 1% of about 180,000 pupils living in Le Marche region present SLDs.

#### Purpose/Methods

Onset recognition and diagnosis of specific learning disorders usually occurs during the elementary school years when children are required to learn how to read, spell, write and learn mathematics. The traditional rehabilitation treatment is aimed to control the meaning contents and awareness in correcting mistakes. At school, a customized teaching plan may be activated according to the special educational needs of the single child. However, intervention tools (teacher training, dedicated staff, video lessons and learning-difficulty oriented computers) are not available in every single school.

#### Results

Since September 2014 a social private territorial cooperative company, responsible for a biweekly Afterschool Educational Laboratory name Gammani (duration 2,30 h) is active and addresses two groups of 6 children each (aged 6-14 years). A multidisciplinary dedicated team (child-psychiatrist,

psychologists, teachers, social-workers) is applied. The afterschool program is supported by new information and communication technologies (ICTs) consisting of compensative software, from vocal synthesis and digital maps building to remote support application. This organizational tool promotes effective study strategies consistent with the ministerial programs for SLDs and is integrated in the health care service system. The available package cost is 250 €/month.

#### Conclusions

A multi-specialist service dedicated to SLDs offers to child, his/her family and teachers the opportunity to improve both learning and social appropriate behavior at school. As to the inheritance condition of learning disorders, specific attendance is dedicated to parents to investigate the difficulties experienced during child help and functional consequences in adult lifetime. A valid reference condition is proposed by the presence of an affordable-price private service offering a spontaneous access, also available to public facilities to create supportive conditions in the construction of an integrated operation pathway. In order to prevent this project from causing/contributing to an increase in inequalities a foundation is ongoing, aimed to guarantee economic and support assistance to needy families, to avoid a withdrawal enhancing long-acting management and remote techniques.

#### Comments

The presence of an affordable-price private service offering a spontaneous access proposes a valid reference even to public facilities in the construction of integrated operation paths for SLDs.

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# Session P1.2: Health promotion for the elderly and age-friendly healthcare

## An Effectiveness Analysis of Periodic Health Examination among Adults Aged 65 Years and Older in Taiwan

### CHIANG Chi-Jung, CHANG Yu-Chia

#### Introduction

In order to postpone the onset of chronic diseases and its concomitant functional limitations and disabilities among older population, an Adult Preventive Care Service was introduced in 1996 to provide free annual health examination for older adults aged 65 and older. Researches in the past about effectiveness of health examination were mainly carried out in foreign countries and they only analyzed data of a single year. This research returns to the essence that health examination should be used regularly and continuously with the purpose to discuss the effectiveness of periodic and continuous health examinations for adults aged 65 years and older in Taiwan.

#### Purpose/Methods

The Longitudinal Health Insurance Database 2005 maintained by the National Health Research Institute was used in this study. Adults aged 65 years and older in 2009 as the study subjects. Subjects were divided into three groups according to the health examination numbers they received for the period between 2005 and 2008: those who have never received the health examination, those who received 1 to 2 times, and those who received it for consecutive three years. We explored the periodic and continuous health examination situation in the older adults in Taiwan. And then we used the propensity score matching method to analyze the outpatient and hospitalization medical utilization and the risk of all-cause mortality among the three groups in 2012.

#### Results

Before propensity score matching, only 26.4% of the 82,309 subjects receive health examination for consecutive three years, and 55.4% of them have never received any health examination. After propensity score matching, each group contained 18,868 subjects. The results indicated that compared with those who have never received any health examination, those who received health examination for consecutive three years had significantly 88% more subsequent outpatient visits, 9% less outpatient costs, 2% less hospitalizations, 23% less hospitalization costs, and 88% less all-cause mortality.

#### Conclusions

It has been found in this research that there is a low proportion for older adults in Taiwan to receive health examination continuously. Through receiving periodic and consecutive health examination, older adults having diseases can be found and treat at an early stage so as to further reduce the utilization of hospitalization and the risk of all-cause mortality. It is expected that this result can provide references for hygiene-policy decision-makers in formulating adult health examination policy so as to further maintain the health of adults aged 65 years and older in Taiwan.

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# The Five-Heart Senior Volunteer Service in Taiwan.

# YEH Shih-Yu, LIN Yi-Hsuan, YEN Chia-Chi, XIAO Yu-Zhen

#### Introduction

"Active ageing is the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age." defined by WHO in 2002. In other words, active ageing is a process to better people's life by providing positive opportunities for health, participation and security. However, no matter government or non-governmental organization, they both mainly encourage elders to participate in recreation, cultural, friendship activities and further education on part of "participation" and rarely on volunteer service.

#### Purpose/Methods

This plan assists elder patients and elders live near hospital to join activities and suitable works arranged for them. "Five-heart" means the five features of volunteer service: love, attention, empathy, learning and happiness. There're 132 volunteers in our hospital now and whose ages are 60 to over 70 accounts for 80.83%. In order to know the degree of satisfaction of volunteer services and their lives, we provided questionnaires designed by five-point Likert Scale and 112 effective questionnaires as final sample.

#### Results

The survey of degree of satisfaction for volunteer service shows that there are about 83.9% volunteers were satisfied of their present volunteer service work; 85.4% volunteers agree that they become happier through volunteering; 85.7% volunteers agree that they could learn new things through volunteering; 86.3% volunteers agree that they enhanced themselves through volunteering; 85.9% volunteers agree that it is meaningful to be a volunteers; 81.6% volunteers agree that complete volunteer works makes them feel more fulfilled.

#### **Conclusions**

Through promoting the five-heart senior volunteer service plan, encouraging elder patients and the elders who live in near communities to join volunteer service when their physical and mental both healthy. We found that about 80% above volunteers agree to be a volunteer is meaningful and feel more fulfilled at work. Therefore, we believe that the whole value of the plan could achieve tripartite wins for patients, seniors and hospital.

#### Comments

The Five-Heart Senior Volunteer Service in Taiwan. Shih-Yu YEH,Yi-Hsuan LIN,Chia-Chi YEN,Yu-Zhen XIAO.

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## Effects of Community Hypertension Intervention Program for Aboriginal Elderly Patients - Experience of the Eastern Taiwan

### WU Hong-Lien, SHAO Bow-Ping, LIN Ying-Ching, CHU Nain-Feng

#### Introduction

Introduction: Hypertension is one of the most common non-communicable diseases (NCDs) in the world-wide which is associated with the later development of coronary heart disease and heart failure. In Taiwan, the compliance and control rate of hypertension are relative low and only about 30-50%, especially at the mountain and eastern area. The purpose of this study is to evaluate the effects of community intervention program among aboriginal elderly hypertensive patients to examine the change of their knowledge, attitude, practice and compliance about hypertension.

#### Purpose/Methods

Methods: We conducted a 3-months period community hypertension intervention program. We delivered an automatic blood pressure (BP) measurement device to every recruited patient and visited them at the community care center (CCC) every week to examine their compliance and recording of BP. We also provided five in-class health promotion lectures for hypertension (including how to measure BP, knowing HTN, complications of HTN, diet therapy and pharmacological therapy of HTN). A structure questionnaire will examine before and after the program to evaluate the change of KAP and compliance.

#### Results

Results: At baseline, there are total 82 (60 females and 22 males with the mean age of 78.6 YO) included in this program, about 10.8% were current smoking, 33.3% with the habit of frequently alcohol drinking and 47% with betal-nut chewing. There are only 71.4% and 870.2% patients considered diet salt and fat intake may be associated with hypertension. Only 60.7% patients visited physician regularly and 48.8% patients took hypertensive medications every month. After 3-month intervention, the KAP showed a significantly improvement and the compliance of BP measurement and regular medications increase up to more than 90%.

#### Conclusions

Conclusions: Hypertension is one of the most important NCDs among elderly population, especially for the aboriginal population, due to their diet and lifestyle characteristics are associated with occurrence hypertension. After intensive community intervention, the knowledge, practice and compliance showed significantly improvement for these elderly patients which may be applied to other NCDs program for the aboriginal area in Taiwan.

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# Outreach healthcare services for a public elderly center in eastern Taiwan: experience from Hualien General Hospital

#### **CHERN JIMMY, TSAI HSIN-CHIH**

#### Introduction

Hualien General Hospital is a district hospital in eastern Taiwan. One of the missions of this hospital is to develop an effective and efficient health delivery system for elderly in Hualien County. Despite holding many health promoting activities for community elderly, the hospital financial performance is getting worse due to competition of regional hospitals and a nearby medical center. How to maintain financial sustainability becomes an important issue for this hospital.

#### Purpose/Methods

In order to improve the hospital financial performance and fulfill hospital mission, we have decided to get partnership with "Elderly Center in Eastern Taiwan" and provided outreach direct medical services in this institution since January 2014. There were 196 residents in this public long-term care institution. The mean age was 79.4 years of age. We set up outpatient clinics in this institution. If the residents need further evaluation and/or intervention, they were transferred immediately to Hualien General Hospital.

#### Results

A total of 296 outpatient clinics were provided in "Elderly Center in Eastern Taiwan" from January 2014 to November 2015, including Family Medicine, Psychiatry, Rehabilitation Medicine, Dermatology, and Orthopedics. The number of Outpatient visits was 6,840, and admissions were 556. The medical expenses were about 1,338,000 US dollars. In addition to financial benefit for hospital, quality of healthcare got better in this institution. Admissions, inpatient days, readmissions within 14 days, and inhospital deaths were lower in 2015.

#### Conclusions

Hualien is an ageing county in Taiwan. The proportion of people over 65 years is reaching 14%. Accessibility of medical care services for elderly can be hampered and inconvenient due to many reasons. Providing direct healthcare services to an institution taking care of elderly is an innovative way to help elderly and enhance hospital financial performance. Healthcare quality improvement in this institution could be attributed mostly to continuity of care, health screening, and vaccination.

#### Comments

Partnership with long-term care facilities such as elderly centers is an innovative strategy not only improving hospital financial performance but also healthcare quality of the facilities.

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## Applying the Ottawa Charter for Health Promotion to Improve Healthy Lifestyles for the Elderly in Alishan Village

### CHEN Wen-Chun, FENG Ren-An, LIU Tz-Jie, CHEN Mei-Tsu, CHUNG Jui-Jung

#### Introduction

Currently, there are 633 elderly people (Aboriginal Taiwanese 55-years and older) living in Alishan (Leye Village, Dabang Village, Laiji Village, Lijia Village). The medical treatment data from 2011 to 2013 showed that the top two diseases suffered there by elderly people were hypertension and diabetes. This study promoted "Health Education Curriculum on Common Diseases of the Elderly," "Lessons on Healthy Cooking," and "Dynamic Movement Dancing Class" to improve the health of the elderly though The Ottawa Charter for Health Promotion.

#### Purpose/Methods

This study researches the awareness of common diseases and basic care among elderly people, using Q&A. They were also asked to prepare vegetables harvested from their homes, and a cook and dietitian were invited to teach them healthy cooking skills and strategies for eating a balanced diet. We also led a weekly class for the elderly to do easy stretching and slow dancing, and it helped them move more easily at home and in daily life.

#### Results

The study was held over 36 sessions, in the 4 villages, over a 6 month period. At the conclusion, extraordinary hypertensive rate had dropped from 33.6% to 30.1%; the rate of extraordinary diabetes from 28.5% to 24.5%, a reduction of 4.0% (t=7.399\*). After healthy lifestyle classes, average scores were above the target of 70 points and 8 classes scored 100 points (t=-9.728\*).

#### **Conclusions**

Applying strategies outlined in The Ottawa Charter for Health Promotion, three courses were designed for elderly residents of aboriginal communities in Alishan. It was discovered they could learn and care for each other at home without difficulty. The courses helped them improve their health, maintain physical and psychological wellness, and prevented disease.

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Health Happiness Hope - Tamsui North Shore Elderly Daycare Center

# CHEN Hsiang-Yi, LEE Shu-Chen, TSAI Lili, CHANG Yu-Shin

#### Introduction

Facing the problem of rapidly aging population, the government of Taiwan has launched a series of long-term care programs in

two directions:aging in place and healthy aging. On 2014.10.24,the government of New Taipei city has entrusted Mackay Memorial Hospital to take over the Tamsui North Shore Elderly Daycare Center and 30 elders were approved to receive. The daycare services include physiological care, physical exercise, and interactive activities. We create an age-friendly care environment which enables the local elders to stay sociable and interactive.

#### Purpose/Methods

3H (Health Happiness Hope), the spirit of Tamsui North Shore Elderly Day care Center, is based on the desire of providing health care to create happy lives and hopeful futures for the elders and empower their families. The medical staff( nurses, family medicine physicians, dietitians), nurse aides, and social workers here implement the spirit of "3H" with all their effort by providing health care, holding kinds of activities, and showing deep concerns for elderly mental health.

#### Results

The center has served 35 elders in total from November 2014 to November 2015 and currently is providing services for 29 elders. The services here are: Age-friendly environment —accessible environment and age friendly facilities with clear instructions, warm and bright space which make people feel like at home. Multiple health promotion activities—in order to ensure the healthy aging, the center combines the local culture and resources, designs a series of health promotion activities such as community integration, group intervention, and other physical exercises

#### Conclusions

As the good neighbor of the local elders and their families, Tamsui North Shore Elderly Daycare Center will continuously work for the communities and promote the healthy aging awareness for the elders to enable them to accept the aging better, to support their families on care works, to build a better and healthier elderly caring environment together with the government.

#### Comments

The community elderly daycare center operated by hospital can combine professional medical resources to provide better services for the elders. The services chain of prevention, care, treatment, and rehabilitation can reach every corner of the community. The medical care now is expending from inside the hospital to much more available in the community for public.

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My Heart, My Joy, and My Friends-Using Group Activity to Improve Physical and Psychology Adaptation of Elderly People Living alone -Experience of a Regional Public Hospital

### TSAI Sheng-Hua, KAO Yung-Chi, WANG Wen-Yen

#### Introduction

Article 5 of the Ottawa Charter for Health Promotion: Health care should involve health promotion, and focus on person-centered care that encompasses physiological, psychology, and social dimensions. A regional hospital has developed an innovative community workshop that involves group activities advocating caring with love and dignity, make new friends, promote positive concept of wellbeing, recreate new social network among elderly adults living alone, and improve adaptation of body and mind.

#### Purpose/Methods

The study invited elderly adults living alone in the community to participate in group activities that integrate festivities, memorial holidays, and religions to introduce the concept of health and wellbeing, adaptation of the body and mind, as well as leisure and entertainment. The purpose was to empower elderly adults through the group activities, thereby improving their adaption of the body and mind.

#### Results

The study was conducted between January 2012 and December 2013. 23 group activities were carried out. The themes (2 or more themes were included in each session) were: festivities (17 times), memorial holidays (6 times), religion (4 times), health and wellbeing (19 times), adaption of the body and mind (5 times), and leisure and entertainment (17 times). 130 elderly adults living along in the community participated (1058 participations).

#### Conclusions

The group intervention conducted by the regional hospital integrated health-related information to encourage elderly people care for their health and increase self-awareness. The elderly adults made new friends hence became more incline to participate in activities, visit the clinic regularly, and engage actively in disease treatment. The rate for regular clinic visits increased by 49% in the 1st year and by 110% in the 2 year.

#### Comments

Active aging is the core element of healthy aging, and creating positive experience is essential for sustaining the health, safety, and independence of elderly people. Aging in place is the primary social policy. It integrates the medical resources provided by regional hospitals to facilitate HP, thereby allowing elderly adults living alone to live comfortably, safely, and leisurely.

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The Evaluation Study of Meals-on-Wheels Program on Disabled Elderly **Living Alone** 

HAN Li-Nien, CHENG Shu-Tung, LI Ciou-Juan, LIN Chin-Hua, LEE Jun-Hua, TSAI I-Hsien, HUANG Wei-Hsin

#### Introduction

Mackay Memorial Hospital started to handle the service program of nutritious meals on disabled elders living alone in 2006. Through the program, it is expected to maintain a good nutritional status of independent-living elders and increase their social support networks. The program has been implemented for about ten years, and through this study to evaluate the program effectiveness and the future directions.

#### Purpose/Methods

Purpose 1. Short term: Maintain a good nutritional status of independent-living elders. 2. Middle term: Increase the strength and resources of social support networks of independent-living elders. 3. Long term: Be Successful in aging in place, prevent from accepting institutional care. Methods 1. Evaluation Indicators of Process (1) The number of people who apply meals-on-wheels must reach 10 or more, and the days of meals delivery must be over 80% of a year. 2. Indicators of Achievement Evaluation (1) Mini Nutritional Assessment (2) Social Support Rating Scale (3) Independent-Living Elders Service Satisfaction Survey

#### Results

1. Effectiveness of the Service Process: Service Volume: In 2015, 7 people accepted service, and the service times are 2056, the completion rate of 71.4%. The service days are 299, up to 82%. 2. Effectiveness of Achievement Evaluation One has improved from malnutrition risk to normal nutritional status. Therefore, in short-term and medium-term results, these 7 elders all achieve the maintenance or improvement. 3. Social Support Rating Scale The average volunteers support frequency is 1.26 points. Social workers are the main support system, their average support frequency is 1.19 points. 4. Independent-Living Elders Service Satisfaction Survey The overall meals delivery service satisfaction is average 4.43 points, the lower scores project is meals dishes of 4.14 points, reaching the service objective.

### Conclusions

1. Social support service: It is suggested to link to the neighborhood magistrate and other community members to expand its support system. 2. Meal Delivery Service: It is recommended to increase fruit supply or diversity, or pursuant the medicine-using situation, to adjust dishes individually. 3. Number of volunteers: organize a small community activities for the elderly, to increase opportunities for independent-living elders to meet new friends. 4. Number of Service Objects: it should be more active in conjunction with the hospital clinical social workers or community social workers, to take the initiative to seek the economically disadvantaged elders with mild or severer disability.

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Intergenerational learning among children in the community and nursing home residents

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#### Introduction

Age-friendly health care becomes important in an ageing society like Taiwan. St. Joseph hospital is located in a neighborhood with 17.73% higher ageing rate. Our approach was to improve health condition of the older patients through intergenerational learning. We partnered with elementary schools and designed interaction games between children and the older patients from our nursing home. We expected these physical exercises would not only stimulate the seniors' body movements but also their brains to actually improve their health conditions.

#### Purpose/Methods

Our objective is to provide benefits to the elderly patients through cognitive stimulation and physical exercises. It's hard for older patients to learn new games, so the best ones are familiar, easy games associated with past success. We designed a series of old Chinese children games including Gyros spinning, sandbags tossing, and crossword puzzle games, and had the elders teach the children how to play each game. The intergenerational learning was expected to create positive stimulations for the seniors.

#### Results

The average age of the 20 elder participants was 84. Average ADL was 30 minutes. The program involved 40 teenage volunteers, 3 nursing staff, 3 elderly care staffs, and 10 children. 4 elderly patients managed to stand on their feet from the wheelchairs for the gyro spinning game. The average satisfaction rate among the elderly patients and children was 95/100. Seniors also showed great interests and sought for regular game days in the future.

#### **Conclusions**

Intergenerational learning stimulated the elderly patients' brains and body movements, and engaged them for communal participation. It is scientifically proven to effectively improve their health. During the games, the seniors felt accomplished teaching the children how to play the old games from their childhood. It increased their self-fulfillment and also provided a great opportunity for the youth to learn about senior care.

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## Application of multi-sensory Reminiscence memory model of care to geriatric day ward

## SHEN Shu-Hua, YEN Miaofen, JENG Shiun-Yin, LU Huei-Lan, CHEN Shu-Fen

#### Introduction

The purpose of this study was to apply the multi-sensory reminiscence memory mode at geriatric day ward, to improve the depressed mood of dementia elderly, to maintain daily living and make the best use of its existing capacity, delaying its functional degradation.

#### Purpose/Methods

Subjects were 33 elderly with dementia in this quasiexperimental study, applying multi-sensory reminiscence memory model at geriatric day ward. Geriatric Depression Scale (GDS), Cognitive Abilities Screening Instrument (CASI), Brief Symptom Rating Scale were used for understanding the difference before and after the intervention.

#### Results

The results found that 33 elderly with dementia, average age of 76 years, the score of GDS from an average of 9 points decrease to 5.7 points, the overall average score dropped 3.3 points; happiness index of BARS increased 18.2%, not happiness index decrease 18.2%; CASI measuring the average score was 48.15 points before, average score was 47.35 points after ,the difference was -0.08 points.

#### Conclusions

After applying multi-sensory reminiscence memory model at geriatric day ward, this study found a significant improvement in elderly depressed mood and cognitive function can slow down the degradation.

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Promoting Health Behaviors for Elderly People through Diversitydesignated Courses in Mei-Gui Village, Xindian District, Taiwan

# LEE Yu-Tsen, TSENG Chun-Han, HSIEH Hung-Yu

#### Introduction

Aging of the population was becoming increasingly evident in Taiwan. The proportion of the population aged 65 and older increased from 8.8% in 2001 to 11.5% in 2013. In Xindian district, New Taipei City, 11.6% of the people were 65 and over in 2013. An aging society has serious financial and social impacts, because older people are more vulnerable to physical and mental health problems. Therefore, the project aims to arrange a series of diversity-designated courses to promote older people's health behaviors.

#### **Purpose/Methods**

A two-month series of courses was designed for older people in Mei-Gui village, Xindian distric. The courses were in every Monday comprising thirty-minute exercise and an one-and-half hours art course. Weekly exercise was led by a fitness instructor for older people to maintain a successful exercise routine. In the art courses, an experienced artist inspired older people to create artworks around themes and share their life stories. A questionnaire of active aging was used to collect data among older people's physical and mental health behavior and social engagement behavior (5-point scale, from strongly disagree,1, to strongly agree,5).

#### Results

A total of 21 older people participated in the courses, 10 people finished the questionnaire before and after the series of courses, average age 68.5±8.3. The questionnaire survey showed that

self-appraised physical and mental health behavior increased from 4.1 (SD=0.6) to 4.4 (SD=0.6), containing routine health checkups, self-acceptance and self-affirmation. Score of self-appraised social engagement behavior had an evident rise from 4.2 (SD=0.6) to 4.5 (SD=0.6), including willing to do some voluntary work and participate in social activities.

#### Conclusions

The series of diversity-designated courses containing exercise and art can promote older people's health behavior. The weekly exercise course helps older people to create a habit of exercising. The art courses provide a creative space and a social platform for older people to stimulate their creativity and share their life stories, which increases activity (doing something), interaction and social exchange among older people. High physical and mental health behavior and social engagement behavior can further improve older people's happiness and health and wellbeing.

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Towards an Age-Friendly, All-Age
Excellence Health Care ModelAssessment of "Taiwan Age-Friendly
Health Care Framework"
Implementation Efficacy

### KUO Yi-Chun, CHANG Yu-Cheng, HUNG Hsi-Lung, W Chen, HSU Yueh-Han

#### Introduction

In 1993, the proportion of people aged 65 and over accounted for 7% of the population of Taiwan, thus qualifying the country as an aging society. By 2025, it is estimated that Taiwan will become super-ageing. In 2010, the National Health Council began to promote the "Age-Friendly Health Care Facilities Certification" program, and by 2015, 198 hospitals had participated in the certification program. There is no relevant literature assessing the efficacy of the "Age-Friendly Health Care Institution Framework" implementation.

#### Purpose/Methods

The hospitals included in this study made a systematic implementation of the four core aspects of the framework (management policy, communication and services, care processes, physical environment) as detailed in the "Age-friendly Health Care Institution Framework". The Taiwan Health Care Indicator Series (THIS) outpatient satisfaction questionnaire and Taiwan Clinical Performance Indicator (TCPI) fall index were used as assessment parameters and data collected before and after the framework implementation were analyzed.

#### Results

The study found that three out of the five categories of outpatient satisfaction showed improvement, including the attitude of the staff (p <0.01), medical procedures (p <0.01) and waiting time (p = 0.02). The incidence of falls in hospitalized patients was in the second quartile deviation (Q2) of the Medical

Center Reference Index before intervention and at the early phase of intervention, but below the first quartile deviation one year after intervention.

#### Conclusions

With the rapid growth of the elderly population and frequent usage of medical care by elderly people, the "Age-friendly Health Care Institution Framework" provides a reference for systematic quality improvement, creates a friendly environment for medical care, and improves quality of care.

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# Facing the Grey tsunami, the elder patients need the new integrated care in Taiwan

#### **LIOU Yi-Sheng**

#### Introduction

The percentage of the elderly in Taiwan was 7% in 1993 fulfills the criteria of an aging country, which is defined by WHO. In 2011, the total population of elder people up to 11.2% and using the 33.5% medical expenditure of National health insurance. The elderly in Taiwan will be exceed 20% of whole population in 2025, it's a problem if there is no change in the medical care systems.

#### Purpose/Methods

Intermediate care have effect for functional recovery in elderly patients with acute medical condition . We want to check the effect of intermediate care provided by Veterans Affairs medical system in central Taiwan in 2014. We screened the veterans who were admitted to a medical center with acute illness in Taichung. We also check the potential of physical function recovery and the will to refer to community hospital for intermediate care among the frail veterans. ADL, IADL, MMSE, MNA-SF, GDS were evaluated for the patients before and after they received intermediate care.

#### Results

There were 23 patients received intermediate care in 2014, of those 16 patients received completed 4 to 16 weeks intermediate care. 7 patients quitted the intermediate care due to acute illness or not to fit the environment of community hospital. Among the patients who complete the full treatment of intermediate care, the score of are ADL 43.1 vs. 67.5;IADL 2.6 vs. 3.7;MMSE, 17.3 vs.19.5;GDS, 2.2 vs. 1.4;MNA-SF 7.9 vs. 8.3 before and after the intermediate care, respectively.

#### **Conclusions**

By multidisciplinary team care with individual care plan of rehabilitation, diet preparing and medicine assessment for the older veterans after acute illness treatment. We find the functional recovery in ADL, IADL, MMSE, GDS and MNA-SF among those patients. So we can say the intermediate care can provide functional recovery for the frail veterans after acute illness in Veterans Affairs medical system in central Taiwan.

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## The Konkuk University Medical Center Senior Friendly Hospital Strategy

## HAN Seolheui, LEE Jongmin, CHOI Jaekyung, KIM Yoonsook

#### Introduction

Korean's proportion of persons aged 65 or over is 13.1% in 2015. By 2026, Korean's elderly population will reach 20.8% and become a super-aged society. Frailty is associated with the presence of multiple chronic health conditions, vulnerability to loss of function, and greater health care needs. The Senior Friendly Hospital (SFH) is to enable seniors to maintain optimal health and function while they are hospitalized. Our hospital will establish the SFH strategic planning.

#### Purpose/Methods

1) Task Force 2) Literature Review 3) Working Group Review, Delphi Panel and Consensus Meetings 4) Environmental Scan

#### Results

1) Establish strategic planning TF for a SFH 2) Designate a hospital lead for SFH initiatives 3) Develop SFH Framework 4) Develop formal policies and procedures to ensure autonomy and capacity of patients are observed 4) Identified clinical priorities for system-wide improvement 5) Utilize SFH design resources in addition to accessibility guidelines to inform physical environment planning

#### Conclusions

Our hospital will adopt at least one indicator to measure improvements to seniors' care as a result of the strategy.

#### Comments

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Health Promotion Concurrently Integrating into Comprehensive Geriatric Assessment for elderly patients

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#### Introduction

Taiwanese population is aging fast; 65 years and older is 12% in 2014, 20.1% in 2018 and 52.7% in 2041, estimated by the National Development Council. Taiwan's National Health Insurance program facilitate Taiwanese accessing health service but not improving self-perceived general health status for Taiwanese elderly. The study of the functional health status of the elderly in Taiwan by using the Chinese version of Minimum Data Set—Home Care showed that 36.1% of older people subjectively need health promotion.

#### Purpose/Methods

The aim of this study was to evaluate whether the concurrent implement of health promotion integrating with CGA for the elderly patient effectively improve health. Health promotion service (HPS) including assessment and education on physical activity, alcohol consumption, smoking, chewing betel nut and dietary behavior added to computerized operating system of CGA. Qualified geriatric nurse practitioner and health educator implement CGA and HPS completely at initial visit, every 3-month follow-up since 2014 April to 2015 June and validated each other.

#### Result

We operated a longitudinal study, enrolled 134 patient aged 65 and over in a tertiary hospital. The analysis of 5 consecutive quarterly CGA showed significantly improvement in cognition, delirium, dental and oral health, timed get up and go test, swallowing test, urinary incontinence, (baseline vs Q1,Q2, Q3, Q4, Q5, respectively p<0.05), no significant change in hearing, vision, malnutrition assessment, and negative significant in polypharmacy. ADL started improving at Q2 (p=0.032), IADL at Q3 (p=0.002) and depression symptoms at Q3 (p=0.002).

#### **Conclusions**

HPS integrating CGA operating system facilitated health provider to effectively improve several domains of CGA such as cognition, delirium, oral and dental health, gait, swallow, urinary incontinence after 3-month intervention and maintaining at least 1-year. ADL, IADL and depression symptoms take 3-6 months to response intervention and reach static status after 6-9 months. Gradually increasing polypharmacy may be due to more patients' comorbid conditions detected, not related to HPS.

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A pilot study of spiritual Reminiscence therapy in a health promotion Hospital.

## LIAO Miao-Yu, HUNG Yu-Chen, WU Li-Fen, LEE Meng-chih

#### Introduction

Taiwan became an aged society since 1993 , and the issue of taking care of the elders is very important. The incidence of

dementia people in the elderly is 8.91% in 2015 . They experience not only memory problems but also behavior problems. Taking care of Dementia patients is a great burden to family. Besides drug therapy , We want to try a pilot spiritual reminiscence therapy to help dementia patients.

#### Purpose/Methods

Our hospital uses a pilot study spiritual Reminiscence group therapy. in mild to moderate dementia patients. From May to November in 2015, 60 persons enrolled in the study. They all attend the therapy once a week for four week. We use Mini-Mental status exam (MMSE), Geriatric depression scale(GDS), and Life quality score (EuroQol-5D-3L;) as measurement. Statistics Methods: we use descriptive statistics and inferential statistical analysis .

#### Results

This study has 60 subjects, and the average age is 78.2 years old .31.7% are male and 68.3% are female. Their education level are as belows: High school 23.3% and 23.3% are college or above. After one month intervention , the results showed their life quality score had significant improved(  $P\!<\!0.05$ ). But cognition score (MMSE)  $_{\star}$  depression score (GDS) had no definite change.

#### Conclusions

The higher the education level the people are, the more likely they will seek help with dementia problems. After four weeks of spiritual Reminiscence. There was a significant increase in quality of life and more patients became independent. However, further study need to be done in the future.

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Improving Body Sanitation of Nursing Home Residents through Multimedia Education

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#### Introduction

Since 1993 population of the age of 65 years old and beyond would occupy 11.5% of the total population in Taiwan as of the end of 2014, and Taiwan has become an aged society. Daycare providers and nursing homes have become a trend companying the change of the society. Of daycare works, body cleaning would help reduce bodily odors, increase bodily comfort, and reduce infections

#### **Purpose/Methods**

To raise the nursing home staff's awareness on bodily sanitation of nursing home residents through multimedia education. The measures to be taken are: (1) set up a standard procedure for body cleaning (2) arrange continuing education on body

cleaning, and (3) produce multimedia teaching materials on body cleaning, and (4) periodic auditing.

#### Results

Implementation of the project shows the daycare providers' cognizance on body cleaning procedures rose from 65% to 98.9%; and the rate of implementation of the bodily sanitation project from 74.5% to 95.3%.

#### Conclusions

Per the standard procedure, new comers will be provided with multimedia teaching materials to help improve their cognizance of residents' bodily sanitation. New comers will also be led by selected seed instructors in the course of getting familiarization of bodily sanitation.

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## Discussion on the health condition and facts of falling for solitary elders in a region of Taiwan

#### **PEI CHUN wu**

#### Introduction

According to statistic, in Taiwan, the elder above age 65 who lives alone is 5.5% higher than the elder between age of 55 to 64. This study found there was 19% cases had an experience of falling in past year. We hope promoting the welfare and policy for elder by combining the local medical service and social welfare system to make the elder have a healthy, independent, respected life in their old age

#### Purpose/Methods

We choose 300 elder by randomized sampling. Assessing by home-visiting, questionnaire and ADL scale.We established a healthcare system below: 1. Cooperated with the borough leader, let the elders join the system to management them. 2. Found a 24 hour emergency line, and offer a two-way transferring system to combine with local clinics. 3.Enforce the education for those who is taking the multiple medications in the same time. 4. Elders who is takingmultiple medicine or having chronic disease. Integrate their medication.

#### Results

1. After we analyzed and investigated 300 solitary elders. We assessing the elders' health condition and analyzed their relative cause of danger. There are 57 elders had fallen during past year, 243 elder had not fallen in past year. 2. Investigating 57 solitary elder who had experience of falling, their past history of disease and medicine-taking are above:

#### Conclusions

1. According to the study, we found the solitary elder who had experience of falling during past year. Using the chronicmedications may raise the risk of falling. Therefore, for those elders who is using the medication of Hypertension, DM or cardiovascular diseases, we made an educational sheet to reduce the accident. 2. Analyzed the ADL scale, there are 57 cases had

experienced falling during past years. The elder became slightly disable was 33.3%. Among the disable cases, there was 64.3% elders who had diseases of hypertension, heart disease, DM in the same time. Therefore, by integrate the medications, palliate the degeneration and elevate the self-care ability. We can create an elder-friendly society

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The Effectiveness of Prevention of Nursing Home Residents Falls by Cross-Unit Squad Integrated through Multiple Quality Control Techniques

# CHEN CHIU-CHEN, LIN MENG-HSUAN, LIN YU-TING, HSU CHI-CHEN, CHUANG SHU-TING, CHIEN SOU-HSIN

#### Introduction

18.7 percentage to 20.5% of the elderly in Taiwan had experienced accidental falls. According to a study conducted by foreign research, 10% of those who fell had died while hospitalized, and 50 percent had died within a year after being discharged from the hospital. Such occurrences would often cause complaints from the family members of the deceased and disputes between family members and the hospital which in turn imposes pressure on nursing works

#### Purpose/Methods

The Nursing Home's goal is to reduce the occurrence of falls and avoid accidents. And this will be achieved by concluding the reasons of falls based on case studies in 2014 and to (1) develop common language for team discussions on preventive measures; (2) develop the nursing team's and the patients' family members' awareness toward preventive measures for accidental falls; and (3) assess and evaluate the selection of aiding devices and hospital beds.

#### Results

The occurrence of accidental falls in this institute is 0.23% in 2014. After the implementation of the program during January to May of 2015, the rate of falls has been lowered to 0.10% during June through October of 2015. And the intervals of two incidents of falls occurred in two wards have reached a 30-day goal indicating the progress of the program.

#### **Conclusions**

Providing more safer environment in the resident's daily life and reducing the damages of accidents through involving cross-sector staff members to participate in the prevention of occurrence of falls at the nursing home and raising staff's awareness of preventive measures is advised to be taken into account for care work in the future.

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## Use of Flexible Balls' Training to Improve Muscle Strength in Nursing Home

### YANG SHIH-CHEN, CHEN YA-FANG, HSIAO LANG-FANG, SHEN CHIA-LEN, TSAI YI-FAN

#### Introduction

Due to aging and long term bed lying, elderly in nursing home have the syndromes of lose balance, muscle weakness and unstable walking. The muscle strength lost 20% after one week of inactive hospitalization. This will result in muscle shrinkage of 13% to 20%. Through initial muscle training by flexible balls, it aims to increase active muscle exercises and strength of residents.

#### Purpose/Methods

A total of 23 residents participated in muscle training between January to October 2015. Patients with four limbs muscle strength of 3 point will train their muscles through the installed flexible ball from ceiling. The strength of muscle was trained through kicking and grabbing balls three times a day. When the muscle strength point reaches four, the patients will be advanced to pedal wheelchair for further training on muscle, joints and stability.

#### Results

An alternative week assessment for muscle strength of participants was conducted. During the assessment, verbal encouragement were given appropriately. Results showed an average increase of 218 muscle activities for all four limbs. On average, right upper limb increase 642 times, left lower limb increase 37, right lower limb of 37 times and lower left limb of 394 times. The muscle strength point of left upper limb increase from 3 to 4, right upper limb from 4 to 5, left lower limb from 3 to 4 and right lower limb from 4 to 5.

#### Conclusions

Through the initial training of muscle by flexible balls, it can increase the use of muscles. Thus, increase the strength of muscle and achieve the goal of rehabilitation. The use of such training can be used as a reference for future muscle training.

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# Upper extremity strength training in geriatric day care On Elderly: A Preliminary Study

### YEN Yu-Ting, CHEN Shu-Fen, SHEN Shu-Hua

#### Introduction

Physical training principle of elderly should consider the individualized, progressive, sustainable, fun and safety. From

simple upper extremity strength training to strengthen the upper body strength training, either upper or proximal muscles of the hand muscle strength training, can enhance the elderly independent function in daily life. The purpose of this study was to explore effectiveness of the upper extremity strength training for the elderly.

#### Purpose/Methods

34 elderly received upper extremity strength training in geriatric day hospital in a psychiatric hospital southern of Taiwan. The average age was 75 years, 80% was diagnosis of dementia, 20% was other mental illness, dementia rating scale was 1-2 points. 34 elders used 0.5-1 kg sandbags in upper extremity strength training, each training time was 20 minutes, rest for 10 minutes, a total training twice in one hour, then to assess the upper extremity muscle strength after training.

#### Results

In this training process, study found significant differences in the elders upper extremity strength, 78% elderly could enhance strength training from barehanded to 0.5kg sandbags on hand muscle strength training , 22% elders from barehanded enhanced to 1kg sandbag training upper extremity strength training with both hands, in the whole training process, 90% elders of this training was very satisfied and think that strength training for upper extremity upper limb muscle strength enhancement it has been effective.

#### Conclusions

The result showed that elderly upper extremity strength training to improve upper limbs function significantly. after upper extremity strength training, the elderly muscle strength, muscular endurance, body balance and coordination skills can get to improve further the reaction of the upper extremity. Elderly upper extremity strength training could enhance the upper limbs strength to improve flexibility, and physical fitness can delay aging, and thus enhance the good daily life.

#### Comments

Decreases in the muscle strength, balance ability, flexibility and response were found with aging. For safety and stability in daily activities, Elderly people would reduce the muscle strength. With upper extremity strength training so that older people are more effective action in daily lives, for quality of life and health have a positive impact. Key word:Geriatric Day care,Upper-Extremity Strength Training

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An evaluation on Elderly participation in Rehabilitation Exercise after Hip Replacement Operation

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#### Introduction

A total of 63 elderly patients with hip replacement were received in north zone hospitals from January to May 2015. 24 patients who did not participate in rehabilitation had resulted in decline of lower limbs. 3 fall incidents occurred due to lack of strength of lower limbs. Hence, provision of rehabilitation activities to reduce pain and improve muscle activities for patients with hip replacement is of crucial need.

#### Purpose/Methods

The aim for the research is to conduct rehabilitation through exercising to improve lower limbs strength of elderly with hip replacement. Rehabilitate graphic cards and video were designed to record down the exercise methods, time, frequency and things to take note during 1st to 10th days of post-operation. The cards and video were used to educate patients on rehabilitation exercises after their operation.

#### Results

Between June to October 2015, there were 50 clinical patients underwent hip replacement operation. The rejection rate for rehabilitation from concern over relocation and afraid of pain reduced from 67% to 15%. After two weeks of implementation of rehabilitation cards and video, the pain reduced from 6-7 point to 3-4 points and strength of lower limbs increase from 1-2 to 3-4. The results indicate positive outcomes of reduce pain and increase muscle strength after patients cooperation in rehabilitation exercises.

#### Conclusions

Through the rehabilitation graphic cards and video, they educate patients on rehabilitation exercises after hip replacement operation. This method helps to improve muscle strength and reduce pain.

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Exercise and intake of fruits and vegetables to enhance the effectiveness of the quality of life of the elderly in Taiwan

#### **HSIEH MING-LI, CHOU Yi-Jiun**

#### Introduction

Factors affecting the quality of life (QOL) of older persons there are many more exercise and eating more fruits and vegetables on the quality of life of older people are helpful, if at the same time more exercise and eating more fruits and vegetables, the effect is unclear.

#### Purpose/Methods

We aimed to explore the effect of QOL with concurrent increase exercise activity and intake of fruits and vegetables. We analysed databank "the Survey of Health and Living Status of the Middle Aged and Elderly in Taiwan" within 1999 and 2007. Excluding people with incomplete medical data, and those who was dead in the following 8 years. At last, 2,915 people were enrolled in

this study. QOL assessment using Satisfaction with Life Scale. The statistic analysis was performed with IBM SPSS statistics 21.0 software.

#### Results

In physical activity and intake of fruits and vegetables are low as the control frequency, the frequency of physical activity and intake of fruits and vegetables are high, their QOL, followed by eight years in the elderly satisfaction increased 2.09-fold (P = 0.002). High QOL satisfaction, physical activity were 2.44 times increase (P = 0.019). High intake of fruits and vegetables were the QOL satisfaction increased 2.26-fold (P = 0.001).

#### **Conclusions**

The results of this study showed that concomitant high exercise activity and high fruit and vegetables intake which can effectively improve the quality of life of the elderly in Taiwan. This result highlights the daily intake of more exercise at the same time the importance of fruits and vegetables, and this health behavior is safe, effective and cost-effective, and save the national health expenditure.

#### Comments

This result highlights the daily intake of more exercise at the same time the importance of fruits and vegetables, and this health behavior is safe, effective and cost-effective, and save the national health expenditure.

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# DIY handmade happy snack program for Nursing Home Residents

# LIN Yun-Chen, HUANG Jhan-Yi, CHERN Jimmy, TSAI Hsin-Chih

#### Introduction

In order to build a resident-centered care for nursing home residents, lately we included diet category into one of our caring activities as which is the most daily thing for everyone. Dietitians planed an activity with a theme in accordance with "DIY handmade happy snack" every month. The activity offers them not only the enjoyment of handmade snacks but also connect the interaction between residents and the care team. We expect this additional program "DIY handmade happy snack" to be helpful at keeping the residents in a cheerful mood and improving their satisfaction regarding our nutrition services.

#### Purpose/Methods

We started the program - DIY handmade happy snack since April of 2013. We looked into how the residents would expect from this program and what those activities have brought out through the questionnaires about our satisfaction that we can get to know their opinions and suggestions.

#### Results

The result indicated that the satisfaction at interesting, social interaction, and even taste of the food were above 4 points.

Compared the year 2013 with 2014, the overall satisfaction was raised from 4.1 points to 4.4 points and the growth rate of satisfaction was 7.3 percent.

#### Conclusions

After executing this program, the social interaction and relationship between dietitians and residents were improved and getting closer. Residents were satisfied both with appetite and affection. By creating achievable expectations, "DIY handmade happy snack" did increase the residents' satisfaction about emotional aspect and nutrition services.

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Prevalence and Prevention of Metabolic Syndrome in Older Women: Building An Multi-Strategy Community-based Program in Taiwanese Coastal areas

### CHAN Hsin-Lung, LU I-Jung, HUANG Wei-Hsin, LI In-Fun, HSIUNG Yvonne

#### Introduction

Metabolic syndrome as a universal health issue in older women has become increasingly prevalent in Taiwan that causes wideranging effects on a variety of significant cardiovascular and chronic disorders. While considerable health risks and health care costs are associated with over-weighed and obese women who are physically inactive in coastal areas, essentials and barriers to prevention success merits thoughtful attention.

#### Purpose/Methods

This retrospective cross-sectional study examined hospital data from adults who participated in annual health examinations during 2010-2014. A total of 11,058 subjects (age mean =  $69.7 \pm 12.01$  years; female = 55.7%) were surveyed to understand the overall prevalence of metabolic syndrome and its correlates among adults in Northern Taiwanese coastal communities. Differences in the metabolic syndrome prevalence were compared by elderly groups' age and gender by the chi-square tests and logistic regression analysis to predict the risk factors contributing to the development of obesity and metabolic syndrome, particularly among older women.

#### Results

The prevalence rates of metabolic syndrome (after adjustment of the waist circumferences in Asian men and women) of this primarily elderly sample in Northern Taiwan coastal areas were above the national standard. Female gender, advanced age, inactive lifestyle, obesity, hyperlipidemia were concluded risk factors. Particularly women and those who were aged 80 and above have suffered a 1.15 and a 1.84-fold greater risk of developing metabolic syndrome than men and the younger cohort under age 45 (p<.05) after the effects of age are duly adjusted.

#### **Conclusions**

Body weight, body mass index, waist circumstances, systolic blood pressure, hyperlipidemia and fasting blood glucose level seem to present an increasing trend as women subjects aged. While the etiology of obesity is multifactorial concerning complex social and environmental factors, an effectiveness prevention program was designed to target elderly obese women in the coastal areas for risk reduction. Multiple strategies and ventures were comprised to empower overweight and obese women, increase participation in physical activities, influence healthy eating, support behavioral changes through organization services, provide counseling and resources, and build community partnership with local networks.

#### Comments

Findings of this study highlight an imperative need to reduce risks contributing to obesity among elderly women in Northern Taiwanese coastal communities. Population-based, multi-faceted, direct-service provision that involve different levels of players are necessary in addition to strategies facilitating individual lifestyle changes for the prevention of metabolic syndromes.

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Using non-NG feeding education sets and daily education schedule module to improve the accuracy rate of correcting care of nasogastric tube feeding among the elder family caregivers

#### **HUANG Ssu-Wei, CHIANG Shu-Chuan**

#### Introduction

Nasogastric tube (NG) feeding is a comparatively safe method with lower risk of infectious complications to provide long-term nutrition support to patients who are unconscious, susceptible to choking or with dysphagia. However in the department where the author served, NG feeding-related complications accounted for as high as 4.3% of patient deaths.

#### Purpose/Methods

The approaches applied to improve the NG feeding accuracy in senior caregivers included :developing the senior patient screening sheet;developing customized non-NG feeding education sets and daily education schedule module as well as standardized procedure based on the principles of health education for senior patients, and establishing the information and consultation system to audit and follow up the senior caregiver's learning outcome.

#### Results

As a result, the accuracy of the senior caregiver's NG feeding knowledge and skills has been improved from 59.1% to 96.2%(37.1% higher ) and from 66% to 96.6%(30.6% higher) respectively; and the death caused by NG feeding-related complications has dropped to 0%.

#### Conclusions

Standardization can improve health education content shades inconsistent, Using customized health education atlas and videos repetitive learning enhance memory, improve elderly person servicing capacity to absorb and understand the new, increase the ability to absorb and learn new things. repetitive demonstration teaching, does improve the implementation of a nasogastric tube-fed elderly care caregivers correct rate.

#### Comments

This idea and spirit can be compatible with other hospital to development of various tubing nursing health education and construction of audio and video equipment played repeatedly video channels in the ward. Enhance patient safety and effectiveness of health education. Looking forward to developing more items and forming the integration benchmark of nursing.

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Healthy and Convenient Food for Elderly People Living Alone - MacKay Memorial Hospital's Nutritious Ready Meals Program

# HAN Li-Nien, LIN Chin-Hua, LEE Jun-Hua, YEN Wei-Chieh, HUANG Wei-Hsin, LEE Shu-Chen

#### Introduction

During MacKay Memorial Hospital home meal delivery services, the personnel found that elderly people living alone generally have malnutrition because of economic disadvantage or weaker self-care ability. Thus, we developed potassium- and phosphate-controlled ready meals with low fat and low cholesterol, and then cooperated with social workers in Department of Social Welfare to deliver the ready meals for free to vulnerable elderly people in the community.

#### Purpose/Methods

Purpose: The delivery services helped the elderly obtain safe and nutritious food in a convenient way. Subjects: Elderly people with middle-low or low income, and disabled elderly people living alone. Methods: The workflow of ready meals of the elderly living alone (A) MacKay Memorial Hospital provides ready meals once per two months; the social workers in the Department of Social Worker Management, Social Service Room, MacKay Memorial Hospital, are responsible for the services. (B) Community welfare facilities send e-mails to the responsible social workers to request services. (C) After the responsible social workers evaluate, they send an approval list to the Nutrition Division. (D) The nutritionists in the Nutrition Division inform the manufacturers of ready meals to randomly deliver ready meals to each community welfare facility.

#### Results

Achievements In 2013, MacKay Memorial Hospital cooperated with 29 community welfare facilities and assisted 8,970 people

in total. Current crisis (A) Financial crisis: The amount of donations is declining every year, but the number of elderly people living alone are increasing every year, so the demands of community welfare facilities for ready meals are elevating. (B) Subject dilemma: Several community welfare facilities have provided ready meals not only for elderly people living alone but also for vulnerable families and disabled people. But services including these vulnerable groups produce huge expenditure and violate the original concept of this project.

#### Conclusions

Needs survey (A) In order to understand the current demands of community welfare facilities using MacKay Memorial Hospital's ready meals to propose crisis management plans, MacKay Memorial Hospital interviewed sales contact people in charge of ready meals in community welfare facilities by telephone in 2015. Those who demanded more ready meals were priority subjects, and a total of 17 people were interviewed. (B) The main reasons why community welfare facilities apply for ready meals are: 1. Combine with home meal delivery services for elderly people living alone to supply meals when no meal delivery services are provided. 2. Assist vulnerable families to decrease their financial pressure in food. 3. Use as emergency food supply for vulnerable cases. (C) The main reasons why ready meal delivery is stopped are: 1. Financial condition is improved. 2. Home service personnel assisting food delivery have been hired. 3. Unaccustomed to eating ready meals.

#### Comments

Evaluation and suggestions of Mackay Memorial Hospital's ready meal project: (A) Reevaluate the delivery requirements of elderly people living alone. (B) Add vulnerable families to the subjects of delivery services. (C) Establish referral mechanisms of hospitals and community welfare facilities (D) Cooperate with community welfare facilities in remote areas to provide ready.

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# "Ready-to-eat" Texture-modified meals: Making swallowing a breeze!

### CHEONG Magdalin, CHONG Hui Hsien, HUANG Ying Xiao, TAN Jessica, YEO Daniel

#### Introduction

Dysphagia (difficulty in swallowing) may affect nutritional status as patients may not be able to eat certain food, causing malnutrition and adverse clinical outcomes. This presentation describes the development of a Ready-to-eat Textured Modified Meal that is clinically suitable for those with swallowing difficulty and improves dietary intake. The modified food texture and fluid consistency help reduce choking and allow safe swallowing. It is ready-to-eat, nutritionally-balanced and culturally appropriate, obviating the need of caregivers to prepare such meals daily.

#### Purpose/Methods

Based on a 2-week cycle-menu, a panel of healthcare professionals and a focus group of 25 cognitively-intact patients

aged ≥65 evaluated the texture, taste and acceptance of the meals for patients with swallowing difficulty. The meals can be tested on nursing home residents recruited based on inclusion/exclusion criteria, who will consume the nursing home diet or the study meals daily for three months, respectively. Anthropometric measurements, portion of meals consumed can be evaluated at baseline and at regular intervals.

#### Results

The results from the focus group showed that 50% of the patients like the texture-modified blended meals based on presentation, taste and overall acceptance. The finely minced and coarsely minced meals also appear to be acceptable. The modification of the texture will make it easier for the person with dysphagia to consume the food. The increased in dietary intake eventually will lead to improved nutritional status and hence better clinical outcomes, such as weight gain and acceptable Body Mass Index.

#### Conclusions

With a rapidly ageing population, the number of elderly with dysphagia is expected to increase. These meals are easy and economical to use, ensure consistency in nutrient intake, improve nutritional status, and reduce the risk of diet-associated complications. This invention is also nutritionally-balanced and culturally appropriate for Singapore. The meals will help them and their caregivers at home, thus reducing readmission and demand for hospital beds. Additionally, there is opportunity of industry production and for regional export of the know-how.

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## Duplicated Medication In Elderly Patients of Taiwan Rural Area - An Example from Jiasian and Shanlin District, Kaohsiung, Taiwan

# TAI Chih-Chiang, GUNG Shin-Yi, CHENG Hsuesh-Yu, HU Pei-Hung, WANG Yu-Chin LilyCHEN Ming-Hong

#### Introduction

In Taiwan's rural area, multimorbidity is common in the elderly. Due to polypharmacy and duplicated medication, the patients readmitted to primary care medicine for medical services. We investigated the association between duplicated medication and drug-drug interaction in elderly patients.

#### Purpose/Methods

A prospective follow up study was conducted, using the Taiwan National Health Insurance PharmaCloud system to investigate the relationship among all cumulative medications in the 3 months before admission to family medicine. Elderly patients were classified according to the disease of admission family medicine. Polypharmacy was defined as use of 3 or more medications.

#### Results

From June to November 2015, we enrolled 113 patients, mean age was 73 years ( SD  $\pm\,8)$  and 51% were female. The prevalence

rate of hypertension, diabetes and hyperlipidemia of screening population were 75%, 28% and 30%. There was 53 (47%) patients with duplicated medication and only 2 patients with drug-drug interaction. Up to 17% of the duplicated medication group took NSAID agents. Chi-square test showed that patients who took NSAID agents had increased risk of duplicated medication at admission (P = 0.04), while t-test showed that polypharmacy is associated with lower risk of duplicated medication (P = 0.04).

#### **Conclusions**

We found elderly patients taking more medications is not a risk factor of duplicated medication. The physician and pharmacist using PharmaCloud system can check patient medication to reduce therapeutic duplications significantly. NSAIDs are the duplicated medications repeatedly taken by elderly patients. The possible reason may be that elders from rural area in Taiwan are physically labor workers, such as, farmers. The limitation of our study is our choice of constructs. The findings and implications drawn from this study cannot readily be generalized to other groups such as those of pharmacists or patients.

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# Potentially Inappropriate Medication Use in Older Adults living in Longterm care facilities in Korea

# KIM Jae-Chul, JUNG Hye-Young, KIM Jung-Man, KIM Dowi, KIM Moo-Young

#### Introduction

It has been known that potentially inappropriate medication use and its complications are common in long-term care facilities. However, no studies have been performed yet on medication use in long-term care facilities in Korea so far.

#### Purpose/Methods

This study was conducted to investigate inappropriate medication use in elderly nursing homes in Korea. All 9 Long-term care facilities in Seoul were approached in this study. Two hundred and eighty subjects over age 65 were included. Specific information collected from participants included demographic information, medical history, and current medications. The prevalence of potentially inappropriate medication use was surveyed by applying the Screening Tool of Older Person's Prescriptions (STOPP) to each resident's information. Frequency and correlation analysis were performed.

#### Results

Potentially inappropriate medication use was identified in 114 patients(40.7%) by STOPP criteria. Medications being used inappropriately included aspirin in 21.2%, calcium channel blockers in 14.1%, long-acting benzodiazepine in 13%, and antimuscarinic drugs for the bladder in 11.9%.

#### **Conclusions**

In this study, potentially inappropriate medication use in longterm care facilities was frequent. Inappropriate medication use also varied according to the medical institution and the type of prescription drug being used. This means that long-term care facilities need systemic prescription evaluation, and proper evaluation criteria must be developed in Korea as soon as possible.

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# Creative drug card improves the drug safety of old people in ophthalmological clinic

### HO HSUAN, WANG YI-CHIH, KUO TING-YU, YEN HSUAN, TSAI YI-FAN

#### Introduction

More than half of old patients (1,576/3,076) occurred blurred vision after usage of mydriatic/miotic eye drops and repeated to ask the drug information at ophthalmological clinic of a metropolitan hospital from January to April, 2015.It presented that providing clear drug information of eye drops to old outpatient is more important.

#### Purpose/Methods

The aim of this study is use of creative drug card to improve the drug safety of old outpatients at ophthalmological clinic. We designed a graphic card composed of 5 sticky petals and contents included name, potency, prescription method, prescription time and attention of mydriatic/miotic eye drops. We educated old outpatients through graphic card before prescribing eye drops and continued examination.

#### Results

We found a total of 2,998 old parents in 285 clinics who repeated to ask the drug information of mydriatic/miotic eye drops from May to August,2015. Finally, the rate of repeated ask was 5.1% (154/2,998). The correct use of drug was from 85.2% to 95.8%. It presented that old outpatients were awarded of drug use after 4 months' intervention.

#### Conclusions

Education with a graphic card not only improved the awareness of drug use but ensured the drug safety of old parents in ophthalmological clinic.

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A creative prescription bag at home care visit reduces the prescription errors of old people

### HOU CHUN-MEI, HO HSUAN, CHEN YA-FANG, LU LI-HUA, TSAI YI-FAN

#### Introduction

Prescription error is an important issue of polypharmacy. It often occurred in old people and is highly associated with negative health outcome. An investigation of a nursing home of metropolitan hospital in 2015, we found 200 polypharmacy and 40% (80/200) of them had prescription errors. The main problems were taking drugs at wrong time and putting back in wrong prescription bag. It could inevitably lead to morbidity and mortality.

#### Purpose/Methods

The aim of this study is use of a creative prescription bag at home care visit to reduce the prescription error of polypharmacy in old people. We made the prescription bag with clothes which was easily washed and waterproof contained on the surface to prevent moist of drug. Bag was also labeled morning, evening and night with colors to raise the cognition of prescription time. It could also help people to put drug back in the correct bag.

#### Results

A total of 80 old people who had prescription error was invited to join the research from April to October, 2015. The number of questionnaire was 5 and satisfied degree was scored from one to ten. It was done with face to face through care home nurse. We found zero prescription error and satisfied rate was from 82% to 95% after 6 months' intervention.

#### **Conclusions**

This new action could improve the prescription errors of polypharmacy in old people at home care visit. We could promote this action to other home care institutes and raise the drug safety of old people.

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# Correlation between potentially inappropriate Central Nervous System(CNS) medications use and fracture in the elderly patients

#### **HO Ling-Yun**

#### Introduction

Potentially inappropriate medication (PIM) indicates the adverse effect of medication is greater than it benefits. The Central Nervous System medications are used by elder citizens, improving their sleep quality and psychological status but increasing the risk of falls and fractures. The aim of this study was to explore the association between potentially inappropriate medication and the fractures in femur, wrist or forearm.

#### Purpose/Methods

This retrospective study included data from Jan 2000 through Dec 2011, based on 1-million cohort dataset of patients aged 65

years and older from the National Health Insurance Research database (LHID 2005 & LHID 2010) of Taiwan. Potentially inappropriate medication was identified with Potentially Inappropriate Medication-Taiwan Criteria. Logistic regression and cox proportional hazards model with propensity score matching was applied to explore risk factors and relative risk between potentially inappropriate medication and fractures in femur. wrist, and forearm.

#### Results

A proportion of 21.7 % was identified as potentially inappropriate medication. Also, characteristic of the patient, the health care facility, and the doctors were identified as risk factors. Although there was no statically significant difference between potentially inappropriate medication and fractures in femur, wrist, and forearm, the trend of higher risk on fractures in wrist and forearm was found. ( Wrist HR= 1.28; 95%Cl= 0.67 - 2.44; Forearm HR= 1.01; 95%Cl= 0.87 - 1.17)

#### Conclusions

Characteristic of patient, healthcare facility, and doctor were identified the risk factor of potentially inappropriate medication. The trend of higher risk on fractures in wrist and forearm was found despite lack of statistic significant difference. Future researches are needed to evaluate the psychiatric medication safety among elder citizens.

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# An Evaluation of the use of Forteo Graphic Cards and Oral Pith for Patients with Osteoporosis

## YEN YI-LING, CHIEN MEI-CHEN, HSIEH LI-HUA, HOU CHUN-MEI, YANG SHIN-FANG, TSAI YI-FAN

#### Introduction

Osteoporosis is the second largest epidemic worldwide. Forteo therapy is used during clinical setting to treat osteoporosis. In a national hospital, 50 patients received Forteo therapy in 2014. Nonetheless, as most patients were elderly, it was physically challenged for them to read instructions clearly. Hence, lead to frequent repetitive questioning regarding instructions for injection. It took 20 minutes for caregivers to provide such instructions verbally, thus indirectly affected the willingness and outcomes of therapy.

#### Purpose/Methods

Through the use of graphic cards to break down Forteo injection steps and oral pith strategies, they help to enforce impressions of correct injection methods and achieve the goal to prevent osteoporosis. Between January to November 2015, 50 patients with osteoporosis received Forteo graphic card training and oral pith-"Put first, and pull. Then press for 5 seconds"- strategies. First step "Put" refers to putting needle into injection fluid. Second step "Pull" refers to the pulling of black button at the back of the needle. Last step "Press" is the vertical injection in

right angle. Patients complete the Forteo therapy after these three steps.

#### Results

The time for verbal instruction reduced from 20 minutes to 15 minutes for the 50 patients after implementation of graphic cards and oral pith strategies. Bone density assessment improved from 2.4 to 3.1. Satisfaction rate were assessed with 5 being the highest point and 1 being the lowest. The use of Forteo graphic card and oral pith strategies to facilitate correct injection received 5 points, to increase willingness for injection received 4.5 points and overall satisfaction of 4.5 points. These results reflect a positive outcomes through the use of graphic cards and oral pith. Hence, increase the willingness of injection and maintain bone density.

#### **Conclusions**

Forteo graphic cards and oral pith memorizing strategies allow patients to use the medicine accurately. Thus, they help to achieve the goal to promote health activities and effective educating through reduction of training time.

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Comparison of the Long-term
Effectiveness of the Smoking
Cessation Clinic between Elder
people and Adults - the Experience
of a Medical Center in Southern
Taiwan

## HSUEH Kuang-Chieh, HSU Chiao-Lin, PAN Lee-Fei, LEE Chia-Hua, HUAI Chieh-Chun, CHENG Jin-Shiung

#### Introduction

Tobacco consumption is one of the major threats for the public health , there are 28,000 people died from cigarette related diseases in Taiwan, which accounted for 30 billions NTD (1000 million USD) of the medical resources. There are various approaches to cessation of smoking, but only limit evidences reveal the effectiveness of older people. The study was to compare the long term effectiveness of the smoking cessation clinic between elder people and adults

#### Purpose/Methods

We enrolled 1065 patients (including 169 older people) since September 2002 to May 2005. We gave every subject facilitated tobacco cessation education and nicotine patch therapy; the standard treatment course was 8 weeks. We encouraged the subjects visiting the clinic at every following 1 or 2 weeks and contacted individual subjects by phone call at the end of the 3rd and 6th months and the first and third year. Seven-day point abstinence was used for evaluating the success rate.

#### Results

Our study sample comprised 896 adult and 169 elder people with average smoking duration 20.3 $\footnote{1}{2}10.0$  and 46.4  $\footnote{1}213.5$  years. All of them accepted smoking cessation therapy including nicotine patch . We found smoking abstinence rates of elder was 42.01% in the 3rd month, 37.87% in the 6th month, and 37.28% in the 1st and 3rd year follow up. Comparing to adult group, their smoking cessation rate was 36.16%, 32.48%, 29.9% and 26.45% separately.

#### Conclusions

This study found that the smoking cessation efficacy of the elderly in smoking cessation clinic in Taiwan is higher than adults in every follow-up time points(3rd month, 6th month and 1st year) and reaches significant difference in 3rd year (p value = 0.004). As the result, we should make an effort on encouraging elderly smokers to quit smoking and which can improve their quality of life in the future.

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# Investigating the Age-friendly Effect of "Experience as an Elder" Simulation in New Staff Training

### CHEN Wen-Chun, CHEN Mei-Tsu, CHUNG Jui-Jung

#### Introduction

The Elderly go through physical and psychological changes as they age, resulting in certain additional safety risks in medical procedures. The "aging suit" simulates the restrictions in movements and balance of the elderly to allow young people to experience the inconvenience they endure in daily life. In addition to raising quality of healthcare for elders, medical institutions need to give their new staff more training to be more sensitive to their disabilities.

#### Purpose/Methods

The purpose of this cross-sectional study is to assess the effect of elderly simulation training on incoming staff of a regional teaching hospital in Taiwan. Subjects are newly hired employees who were asked to complete typical everyday tasks while wearing a suit that restricted their movement and balance as part of their staff orientation training. After their "experience as an elder" simulation, participants of this study filled out a questionnaire on their attitude towards the elderly.

#### Results

333 new employees participated the training course. The rate of certification is 100%, the average score is 97.14. There is 91.21% rate of satisfaction for the elder simulation experience. 90% had a marked increase in awareness of the elderly's physical and psychological difficulties. Most of new staff generally underestimated elder's abilities.

#### Conclusions

We recommend inclusion of the "experience as an elder" simulation in pre-job training and regular on-job education, in

order for improving the front-line staff's sensitivity and attitude toward elders and thus the quality of care could be enhanced.

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# **Built A Care Network for Elder with Dementia**

### LIOU Huoy-In, FERN Man-Hsuan, KUO Ya-Huan

#### Introduction

Taiwan's elder population hits 2.52 million, about12.22% of the total population in 2015. On average, one out of every ten people belongs to the aging group. There're about 4.97% of the dementia elderly in Taoyuan. Dementia Care is the importent issue in community.

#### Purpose/Methods

The purpose of this study is to built a care network in community for dementia elderly to increase life quality of both family and themselves. By Cooperating with communities, we developed care policy for dementia elderly, regularly hold health care and health prevention activies, integrated all services, such as early dementia screening, health education,health promotion, memory clinics,pharmacological & non-,pharmacological interventions, and follow-up.We establishied a day care unit in community for mild dementia, recruited volunteers & training, organized the happy family supporting groups, teaching care skills & sharing group.

#### Results

After one year intervention, 151 subjects were diagnosed demented and treated. A completed case management was done in all of them. Including assessment ,giving advice and information, planning, pharmacological & non-,pharmacological intervention, and monitoring of care. 9 subjects participated "Ativating brain class" in day care unit. 20 volunteers were recruited and complited 20 hrs training program. 45 families partipated the care skills class & sharing group.

#### **Conclusions**

Research reveals the following (1)Progress a comprhensive care networking on dementia elderly is helpful for dementia elderly and their families. (2)The operation programs of the care networking on dementia are developed from the research are contributory on promoting of dementia care for Taiwan's elderly.

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# Exploring the Emotional Experience of Elderly Dementia toward Taiwan Slang Language Culture of Reminiscence Therapy

### CHEN SHU- FEN, KUNG HSIN- YI, SHEN SHU- HAU

#### Introduction

The purpose of Taiwan slang language reminiscence group therapy was to improve elderly depression of mood, promote members into each other interpersonal social interaction, slow degeneration of cognitive function, emotional show modest guide elderly, enhance the status of self-satisfaction; effectiveness of nostalgic community presented by the amount of hard information provided herein colleagues refer to the relevant fields.

#### Purpose/Methods

This was an one-group pretest-posttest design, 12 sections Taiwan slang language reminiscence group therapy was implemented on April to June, 2015. Assessment tools include: mini mental status examination, Geriatric Depression Scale(GDS), the clinical dementia rating scale(CDR), mininutritional assessment. Applying field observation and in-depth interviews conducted data collection, relevant information to descriptive statistics and qualitative analysis.36 participants were the Dementia elderly in a geriatric day care of psychiatric center in southern Taiwan.

#### Results

Statistics analysis showed that there is no significant difference among mini mental status examination, Geriatric Depression Scale, clinical dementia rating scale and mini nutritional assessment. The In-depth interviews and observations found that: 83% dementia elderly had long-term memory retention, could talk about the early years of life experience and expression emotion. 50% elderly expressed that the growth process with hard struggle, 66% elderly slang sharing can be satisfied with their current living conditions, 73% elderly recalled the early years of family warmth from slang group, 83% showing off a smile in the group process more than 10 times.

#### Conclusions

The purpose of this study was to explore the effectiveness and experience of Taiwan slang language reminiscence therapy at geriatric dementia case.dementia elderly had long-term memory retention, could talk about the early years of life experience and expression emotion.elderly expressed that the growth process with hard struggle, elderly slang sharing can be satisfied with their current living conditions.

#### Comments

Statistics analysis showed that there is no significant difference among mini mental status examination, Geriatric Depression Scale, clinical dementia rating scale and mini nutritional assessment. Applying with reminiscence group therapy then observation and in-depth interviews at geriatric dementia case. Emotional show modest guide elderly, enhance the status of self-satisfaction.

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# Creating New Service System for Early Dementia in a Rural Area

#### FANG Chun-Kai, WANG Ying-Chi

#### Introduction

To detect early dementia patients and to provide services for patients and caregivers are important. Around the most northern Taiwan, there are about 516,000 people and the official estimate that about 2,800 elderly people with dementia. The project was to found a community service center to detect and service early dementia patients and their caregivers. The report was to analyze the results in the first 18 months.

#### Purpose/Methods

The project was practiced on Tamshui MacKay Memorial Hospital and supported by the Ministry of Health and Welfare from July 2014 to December 2015. We set up a position in community. We tried to organize community activities to explore early dementia elderly (CDR: 0/5-1). Then we designed some activities for patients and caregivers. We analyze the data by descriptive statistics.

#### Results

There were 434 people participated in three community outreach activities. We found 21 early dementia elderly and 18 of them hoped to get the services. 9 families let us to visit their home to evaluate the environment for dementia patients. There were 40 activities for health promotion for early dementia elderly and 14 activities for caregivers to understand how to care and how to support themselves.

#### Conclusions

The new project tried to build the mechanism to detect and to provide services for early dementia patients and caregivers. Almost people in community affirmed the project and introduced dementia elderly initiative. The patients and their caregivers found the benefits of the activities for them and hoped to attend continuously. The project is worthy to promote in community.

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Care of spirituality in depressive elderly: A literature review with case presentation.

HSU Ya-Yi, SHIH Ying-Jyun, LIAW Wan-Huei, YANG Yung-Jen

#### Introduction

Spirituality is a necessary component in holistic care of patients for its benefit in integrating all modes of interventions. Care of spirituality is the core of health promotion and an ultimate step to fulfill. However, in local practice, caring of spirituality in depressive elderly is omitted due to the lack of formal standard and evidence. In present study, we conducted a review with a case report to evaluate the use and applicability of spiritual care in the elderly with depression.

#### Purpose/Methods

We adopted a systematic approach to perform a literature search for research studies of spiritual care in the depressive elderly without cancer or serious chronic illness. We explored the major electronic databases including MEDLINE for English and CEPS for Chinese literatures. Characteristics of studies, including types of articles, demographic profiles of participants, modes of spiritual care, and outcomes were extracted by researchers and qualitatively analyzed. Key steps in spiritual care were especially explored for potential practical use.

#### Results

A total of 150 reports were identified from initial search, 4 reports were included in the final analysis after excluding those not eligible for our review. A table addressing the intended profiles of the reports will be displayed in the final presentation. We will also present a case report to demonstrate the practical potentials applicability, and propose suggestions applying spiritual care in clinical setting in local practice.

#### Conclusions

Caring of spirituality has been a neglected component in the treatment of depressive elderly in our local setting. In our review we found that currently available high quality studies for depressive elderly are still scarce and highly heterogeneous. However, in the real case, we demonstrated its applicable potentials in clinical care. In conclusion, we urge that spiritual care should be an undivided component in the treatment of elderly depression and should be advocated in local treatment settings.

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Using of group dynamics to improve the effectiveness of care of dementia patients.

YU YA-KUEI, TU min-chien, FANCHIANG Yu-Chen, CHANG Yu-Fang, HSU Chi-Chen, CHUANG Shu-Ting, CHIEN Sou-Hsin, CHANG MEI-FANG

#### Introduction

Taiwan has been transformed into an aged society. The estimated population of dementia patients would reach 930,000 within 50 years. Taking care of demented patients is care-demanding and often at the cost of caregiver 's energy . Caregiver's distress, either physical ,emotional, would result

from inappropriate caring mode, insufficient understanding of disease profiles, and stress. Our study is to describe the stress and promote caring abilities of caregiver through the assistance of multi-disciplinary support group for caregivers and patients.

#### Purpose/Methods

The multi-disciplinary support group for caregivers of dementia patients was composed by physicians, nurses, clinical psychologists, dieticians, therapists, and social workers. Each activity was held every two months in 2013-2015, in which the main theme was goal-directed in accordance with the need of caregivers. Patients with Clinical Dementia Rating 0.5-2 were recruited. Questionnaires evaluating the demand of caring as well as the major concerns of caregivers were collected

#### Results

A total of 205 questionnaires were collected. The major concerns of caregivers were emotional problems (37%) and sleep problems (20.8%). The demands of caregivers were (i) caring technique (71.1%) (ii) medical knowledge of dementia (68.8%) (iii) nutritional issue (64.4%). The satisfaction scores in this program was 88.4 (Scoring system= 0~100). Most of the participants (99.5%) reported their wishes of re-participation. Representing the value of our multi-disciplinary support group for caregivers of patients with dementia.

#### **Conclusions**

With the assistance of multi-disciplinary support group for caregivers of patients with dementia, the caring abilities of caregivers would be elevated. The physical activities delivered in this program provide a proper template for in-home regular activities and additional benefit on daily functional maintenance. The emotional support also provides opportunities for caregivers being engaged into the support of social network.

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Effectiveness of Taiwan Community
Hospitals Fingerprint Filing in Aiding
the Search for missing Elderly People
with Dementia

# SHEN Shu-Chiao, HUANG Hui-Ting, CHUO Ying-Hsiang

#### Introduction

A survey conducted by Taiwan's MOHW in 2014 revealed that the prevalence rate of dementia among elderly people aged 65 years and above was 5%. This indicates that one out of every 20 people has dementia. According to statistics from 2012 to 2014, 3400 elderly people with dementia had been reported missing. Because of ineffective help-seeking services, the success rate of finding was low. Therefore, an effective strategy for dementia care is to minimize the time that elderly people with dementia go missing, thereby reduce the risk of getting injuries.

#### Purpose/Methods

This study aimed to investigate the effectiveness of fingerprint filing in aiding the search for missing elderly people with dementia. In this study, we cooperated with police agencies and district hospitals, and we recruited patients with potential or early dementia as the research participants. Consent was obtained from the participants or their family members to have the participants' fingerprints filed. Once a patient is reported missing, the filed fingerprint data are used to search for the missing patient.

#### Results

A total of 38 participants (aged 61–85) who satisfied the inclusion criteria agreed to participate in this study. Some elderly people refused to participate because they believed that fingerprint filing is for criminals only and because they refused to accept the fact that they are potentially at risk of developing dementia. This study was conducted for eight months, during which no incidents of missing elderly people with dementia occurred.

#### Conclusions

The care strategy for preventing elderly people with dementia from going missing includes broadening the knowledge of patients and family members on dementia care, arranging a diversity of activities, making sure caregivers to keep patients proper company, improving the living environment, and designing electronic systems for dementia care. A better help-seeking strategies can reduce the risk of people getting injuries. Currently, the official personal information database in Taiwan has not been introduced with a fingerprint filing system. Interdepartmental cooperation among hospitals and police agencies can facilitate minimizing the time needed to search for missing elderly people with dementia.

#### Comments

A fingerprint filing system of elderly people with dementia facilitates minimizing the search time, reduces occurrence of accidents and physical injuries of missing elderly people. Therefore, government should actively educate the public on the correct knowledge and understanding of fingerprint identifying systems and expand the fingerprint file database; these actions are the correct strategy for handling elderly people with dementia.

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To allay and ameliorate negative effects of cognitive decline of elderly persons residing in convalescent centers

#### LIN JHAN-YI, PU YU-LUN

#### Introduction

In convalescent centers, the development of senile dementia causes confusion and the deterioration of memory, the perception of orientation and cognition. One result is a severe decrease in social interaction leading to a disassociation from society and an accelerated exacerbation of the condition. In this

research program reminiscence therapy, Reality Orientation Therapy and music therapy were practiced in anticipation of an improvement in linguistic and expressive competence, an enhancement of appetite and reduction of the rate of cognitive loss.

#### Purpose/Methods

This research takes the approach of "before and after studies" with purposive sampling. From 7/6 to 7/31 in 2015 the study was conducted with 19 subjects in a convalescent center in Taiwan, using the Short Portable Mental Status Questionnaire. Music therapy was practiced at noon every day, consisted of playing songs for one hour. Reality Orientation Therapy was practiced once a day for 10-15 minutes. Reminiscence therapy was conducted three times per week for 40-50 minutes, 6 times total.

#### Results

By the end of the study the average scores for the 19 subjects showed an increase of 0.58 points on SPMSQ (Pre-study average:  $8.53 \pm 1.02$ ; Post-study average:  $7.95 \pm 1.47$ ). The percentage of those suffering from poor appetite decreased by 26.3%, from 47.4% to 21.1%. Due to the limitation of intervention time, cognitive ability performance shows no significant difference. Nevertheless, during intervention activities, changes in the behavior and emotional states of the subjects were observed.

#### **Conclusions**

The result of cognitive assessment for senile dementia shows no significant difference, but assessment scores increased. The present study demonstrates in dementia patients undergoing reminiscence therapy that the loss of cognitive ability can be delayed and their ability to express themselves and interact socially can improve. Patients can also experience a beneficial increase in appetite. This study therefore suggests that these approaches are beneficial on those suffering from senile dementia.

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## The Effectiveness of Reminiscence Music Therapy for Mood Improvement of Elderly Dementia

# TASI Yu-Chun, CHENG HSUN-YIN, CHEN Shue-Fen, SHEN Shu-Hua

#### Introduction

Nostalgic music could make elderly get a sense of psychological pleasure, elderly would decrease loneliness and delay functional degradation through social interaction and interpersonal process during nostalgic music group. Join in daily life activities of design, can prevent or delay due to aging caused by functional degradation, but also to maintain and enhance their ability to self-care for the elderly social relations, to promote physical functioning and mental health of the elderly, will also enhance the lives of old age quality.

#### Purpose/Methods

The purpose of this study was to explore the effectiveness of reminiscence music therapy for mood improvement of elderly dementia. Subjects were 30 elderly dementia who received day care service at a psychiatric center in southern of Taiwan. Geriatric Depression Scale (GDS) and questionnaires were used for data collection. 30 elderly attend thirty minutes reminiscence music a day, to listen to the nostalgic music and performance. Individual Interview and questionnaire surveys applied before and after the music therapy, and conducted descriptive statistical analysis

#### **Results**

The result showed that the average age of elderly dementia was 75 years old. Geriatric Depression Scale score has decreased from 9 to 4 points, the overall average declined 55%, the results of the activities of the questionnaire survey showed that activity related to emotional satisfaction index increased 15%, social interaction increased 18%, self-satisfaction enhanced to 20%, this music therapy to reduce the degree of depression of the elderly have significant positive impact.

#### **Conclusions**

After receiving reminiscence music therapy, the positive emotion of elderly dementia has increased , interpersonal improved, and also enhanced the sense of self-value, this low cost, and no side effects treatment could be extend to clinical and community .

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# The Effect of the Reminiscence Photo Therapy on Depression in Elderly Individuals with Lung Disease

### YEH Shu-Miao, PAI Hui-Wen

#### Introduction

This study was to examine the effectiveness of participation with reminiscence photo therapy in elderly individuals with lung disease in a hospital. The hypothesis that reminiscence therapies produce statistically significant reduction in depression symptoms was examined.

#### Purpose/Methods

The purpose of this quasi-experimental design was conducted, using two equivalent groups for pre-post test and purposive sampling. Each subject was administered pre- and post- tests in two weeks interval, but subjects in the experimental group underwent six times individual reminiscence photo therapy. The cognitive state of participants was tested by the administration of the SPMSQ. Geriatric Depression Scale (GDS) was used as study instruments to measured depression symptoms.

#### Results

Sixty subjects completed the study, with thirty in the experimental group and thirty in the control group. The experimental findings The pre-intervention depression score in the experimental group and the control group were 18.33  $\pm$  1.709 and 16.37  $\pm$  3.459, respectively. After interventions, the experimental group depression score was 10.03  $\pm$  2.220, and the control group depression score was 16.4  $\pm$  4.107. Using ANCOVA

to analyze the interaction between the post-intervention depression scores of two groups, test results show F = 57.945 and p = .000.The depression improvement was statistically significant.

#### **Conclusions**

These warranted that reminiscence photo therapy is a recommended therapy for elderly individuals with lung disease in a hospital. Reminiscence may help older adults by focusing on former successful coping experiences (Chiueng-Yi Feng, 2010). Li Yuen-yin (1997) pointed out that the elderly are highly interested in recalling the past and talking about their remembrances. Life retrospection is the one of the fundamental elements in the aging process. It brings out pride and confidence in the elderly.

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# An Evaluation on the use of Animal Assisted Therapy to Improve Participation and Active Rate of Residents in Nursing Home

### YANG SHIH-CHEN, CHEN YA-FAN, HSIAO LANG-FANG, SHEN CHIA-LEN, TSAI YI-FAN

#### Introduction

The use of "Animal-Assisted Therapy" aims to improve human's physical, societal and emotional conditions. The therapy also helps to facilitate conversation between the residents and professional therapists. In 2014, a nursing home conducted evaluation on their residents of various conditions. Out of 360 residents, 98 were willing to participate in activities (27.22%), 118 initiated to exercise (32.78%), 120 were able to interact with other people (33.33%), 95 were able to focus (26.39%) and 168 have stable emotion state (46.47%). The aim for Animal Assisted Therapy was to improve on the participation and active rate of the residents.

#### **Purpose/Methods**

On alternative Saturday mornings, an hour of animal assisted therapy was provided since 2015. 1 to 3 dogs were allocated for two services: accompany service and rehabilitate therapy. Accompany service increases visit and care for the residents. Rehabilitate Therapy was designed by rehabilitation officers. Rehabilitation activities were done through touching and walking with dogs. These allow parts or full body exercise, encourage the use of verbal activity and improve recalling of memories.

#### Results

The therapy were conducted twice a month with a duration of 1 hour. After the therapy, discussions were conducted with residents and staffs to evaluate the process. A total of 2000 services were recorded till October 2015. Professional officers observed throughout the therapy and provided evaluation on the activities. Results showed a total of 993 residents were willing to participate in activities (49.65%), 1030 initiated to exercise (51.55%), 858 were able to interact with other people (42.9%), 736 were able to focus (36.8%) and 1202 have stable

emotion state (60.10%). The result reflected an improvement of both physical and mental state of the residents through animal assisted therapy.

#### Conclusions

It was found that animal assisted therapy can improve active participation in both activities and exercises, human interaction, focus ability and stable emotion state. Hence, the use of such therapy should be encouraged and can be a reference for future long term health service planning.

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## Listen to "Breathing" Sound: The Life of Elderly Patients with Long-Term Ventilator-Dependence

# LU Hsiao-Ching, HUANG Ming-Hua, CHANG Li-Chen

#### Introduction

In Taiwan, the medical decisions of elderly patients who accepted tracheostomy and ventilator were union-made mostly by theirs family members and medical care team members. Elder patients are constantly forced to accept decision of medical treatment about themselves. This study explored adoption of the lives and illness experience of the elders with long-term dependence on ventilators when they discharged to return home

#### Purpose/Methods

The purpose of the research is to explore life experience and need of elderly patients with tracheostomy and ventilator at home, the findings are offered to medical care teams to improve the total care quality of the patients. We conducted a qualitative research and in-depth interviews with three elderly patients, two males and one female, who can temporarily wean from a ventilator. Based on the interview records, we coded and analyzed the verbatim drafts.

#### Results

1. Decreasing self-care ability:Participants who were affected by shortness of the breath decreased self-care ability, resulting in difficulty to carry out the activities of daily living. 2. Social isolation: Participants who need the oxygen cylinder to supply them oxygen find their activity areas and social interaction increasingly limited. 3. Attitudes toward the illness:The attitudes of participants toward the illness were waiting for death, a will to live or confidently facing reality.

#### **Conclusions**

The illness experiences of participants who live at home were not only physically suffering but also psychologically tormented and socially isolated. To promote quality of life of elderly patients with tracheostomy and ventilator at home, our study recommend that medical care teams increase in home rehabilitation services to prevent the patients from severe

impairment, help to set up the social support networks to reduce the sense of social isolation, and give them counseling to seek the meaning of life in illness.

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## Session P1.3: Furthering painfree healthcare

Efficacy of probiotics supplementation in chemotherapyinduced intestinal mucositis: a potential strategy in the management of cancer therapy in the future

## YEUNG Chun-Yan, CHAN Hsin-Lung, CHIANG CHIAU Jen-Shiu, CHENG Mei-Lien, LIU Chia-Yuan, CHANG Ching-Wei, LEE Hung-Chang

#### Introduction

Intestinal mucositis is a frequently encountered side effect in oncology patients undergoing chemotherapy. Studies estimate 50%-80% of patients undergoing 5-Fluorouracil (5-FU) chemotherapy develop clinical intestinal mucositis. Severe ulceration, inflammation and hemorrhage develop throughout the entire gastrointestinal tract, especially in the small intestine. Mucositis has a huge clinical and economic impact because it may require chemotherapy interruption and discontinuation of therapy. Mucositis therefore ultimately reduces treatment efficacy and patient survival. Finally it prolongs the time and cost of hospitalization. However, no well-established or up to date therapeutic strategies are available. In order to find a novel way to alleviate mucositis, we investigate the effects and safety of probiotic supplementation in ameliorating 5-FU-induced intestinal mucositis in a mouse model.

#### **Purpose/Methods**

Seventy-two mice were injected saline or 5-FU intraperitoneally daily. Mice were either orally administrated daily saline, probiotic suspension of Lactobacillus casei variety rhamnosus (Lcr35) or Lactobacillus acidophilus and Bifidobacterium bifidum (LaBi). Diarrhea score, pro-inflammatory cytokines serum levels, intestinal villus height and crypt depth and total RNA from tissue were assessed. Samples of blood, liver and spleen tissues were assessed for translocation.

#### Results

Marked diarrhea developed in the 5-FU groups but was attenuated after oral Lcr35 and LaBi administrations. Diarrhea scores decreased significantly from 2.64 to 1.45 and 0.80, respectively (P<0.001). Those mice in 5-FU groups had significantly higher proinflammatory cytokine levels (TNF- $\alpha$ : 234.80 vs 29.10, P<0.001, IL-6: 25.13 vs 7.43, P<0.001, IFN- $\gamma$ :

22.07 vs 17.06, P=0.137). A repairing of damage in jejunal villi was observed following probiotics administration. No bacterial translocation was found in this study.

#### Conclusions

In conclusion, our results show that oral administration of probiotics Lcr35 and LaBi can ameliorate chemotherapy-induced intestinal mucositis in a mouse model. This suggests probiotics may serve as an alternative therapeutic strategy for the prevention or management of chemotherapy-induced mucositis in the future.

#### Comments

Intestinal mucositis is a frequently encountered side effect in oncology patients undergoing chemotherapy. The antimetabolite 5-FU is one of the most commonly used chemotherapeutic agents in clinical oncology. Mucositis has a huge clinical and economic impact because it may require chemotherapy interruption and discontinuation of therapy. At present, current managements of intestinal mucositis remain mostly symptomatic treatment, no well-established or up-to-date therapeutic strategies to manage chemotherapy-induced intestinal mucositis are available. Thus the development of an effective intervention against chemotherapy-related mucositis has high priority in oncological supportive care.

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Can detailed education and viewing their cystoscopy decrease the pain and anxiety of the patients receiving cystoscopy?

#### TU Shiouir, WENG Wei-Che, LEE Pei-Chen

#### Introduction

It may be suffering for the patients receiving cystoscopy under local anesthesia. Cystoscopy can provoke anxiety in patients, sometimes to the extent that they request general anaesthesia. A relaxed, cooperative patient during the procedure of cystoscopy makes the procedure easy and less pain. Previous attempts to reduce anxiety during other minimally invasive procedures, e.g. colonoscopy have used detailed explanations and it was found to be helpful. The television monitor used by the endoscopist is simply placed so that both doctor and patient can see the monitor and detailed explanation is accompanied by seeing what is described. Tn this study, we compare the effect of allowing patients to view their cystoscopy on the monitor and with an explanation during the procedure, with an explanation alone.

#### Purpose/Methods

All patients visited our hospital for their first rigid cystoscopy were invited to take part. Consenting patients were randomized to view or not view their cystoscopy. Both groups received detailed explanations before and during the procedure. The urologist randomized patients and performed the cystoscopy with the television monitor placed according to patient assignment. All patients received local anaesthesia with

xylocaine gel. The Krantz Health Opinion Survey was design to measure the preference different treatment approaches, using 16 items in a dichotomous agree-disagree format keyed so that high scores represent favorable attitudes toward self-directed care. Before cystoscopy the patients completed the Kranz Health Opinion Survey (KHOS) , which assesses on a scale of 0-7. After cystoscopy, the patients indicated how painful the experience had been, on a scale of 0-10. All the patients completed two measures of anxiety before and after cystoscopy, the National Institutes of Medical Health (NIMH) self-rating scale of physical and mental symptoms and and seven 100 mm visual analogue scales (VAS) of different aspects of anxiety.

#### Results

Total fifty-five patients completed the study ,17women and 38 men with mean age 58±15.8 years, The mean KHOS score was 2.8±0.7 and the anxiety assessed by the VAS declined after cystoscopy, from 189±37 to 113±25 (P< 0.001). The NIMH anxiety scores were from 27±4.5 to 31±4.7 and did not have significant difference. The mean pain score was 3.2±1.7. The KHOS scores showed a positive correlation with VAS scores after cystoscopy (0.25,P=0.03). Watching the cystoscopy monitor had the effect of on KHOS and Pain score. The effect of watching cystoscopy on the VAS scores and on NIMH anxiety was significant.(P=0.037, P=0.041). Sex and age had no effects.

#### **Conclusions**

There was apparent effect of watching cystoscopy monitor on either pain or on anxiety, Watching the monitor may shift the focus of the patients from pain to their concern for the cystoscopic finding. The anatomical differences make cystoscopy more painful in men, selfreports of pain did not differ between the sexes. The detailed explanation in both groups may reduce anxiety.

#### **Comments**

Detailed education and viewing their cystoscopy did decrease the pain and anxiety of the patients receiving cystoscopy.

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# Music intervention for pain control during extracorporeal shock wave lithotripsy

#### LEE Pei-Chen, WENG Wei-Che, TU Shioujr

#### Introduction

Extracorporeal shock wave lithotripsy (ESWL) has been the main treatment choice due to its simplicity, noninvasive nature, efficacy, and minimal morbidity. Pain experienced during ESWL treatment is considered to be multifactorial including type of lithotriptor used, frequency, voltage, age, and sex. Analgesics commonly used during ESWL include nonsteroidal anti-inflammatory drugs (NSAIDS), and local anesthetic creams, opioids, sedative hypnotics. A relaxed, cooperative patient during treatment is paramount in maintaining stone targeting for optimal fragmentation. Although these medication provide efficacious analgesia, they may be associated with significant

complications. There has been a growing interest in the use of music during medical treatment. Music listening has an effect on anxiety and pain alleviation. In this study, the music intervention for pain control during ESWL treatment was investigated.

#### Purpose/Methods

In the study, the patients were allocated into the music group, in which patients listened to music before and during ESWL treatment, or the control group, in which the patients didn't listen to any music during the same period. A quasi-experimental repeated measure, pretest-posttest design, was used to evaluate the effect of listening to music on pain intensity and pain distress. Physiological parameters such as blood pressure, heart rate, and respiratory rate were also recorded. The music listening began at the treatment consultation and end at the ending of treatment. The spirit music was use for music intervention.

#### Results

Total 187 patients receiving ESWL participant our study, and 89 patients were allocated into the music group. The average age was 43±7.2 . 45 male patients and 44 female patients were included into the music group with their average age 44±7.3. 50 male patients and 48 female patients were included into the control group with their average age 42.9±6.9. There were 2(2.0%) patients need medication for pain relief in the music group and 7(7.1%) patients received pain control medication in the control group. 41(46%) patients fell asleep or experienced that music listening had sleepy effect, otherwise, only 4 patients in the control group fell asleep. Listening to music was good experience during treatment and made them relaxation according to 34(33.7%) patients.

#### Conclusions

Pain is a complex and subjective experience that includes physiological, sensory, affective, cognitive, behavioral and sociocultural components. It can be accessed on the basis of the patient's behavior and by rating patient's pain intensity and distress or recognizing pain from physiological factors such as blood pressure, heart rate, etc. In the music group who have less pain intensity and pain distress than those in the control group, and decreased use of pain relief medication was found. The pathogenesis of pain in ESWL is still poorly understood but is considered to be multifactorial. The role of pain control is limited to allowing application of shockwaves with appropriate timing and strength to obtain good fragmentation. Despite the introduction of new generation lithotriptors, there is need for effective pain control during ESWL for optimal stone fragmentation. The music intervention has the effects of falling asleep and relaxation, and decreases the use of analgesics.

#### Comments

A relaxed, cooperative patient during ESWL treatment is paramount in maintaining stone targeting for optimal fragmentation. Therefore, it is essential to choose an appropriate pain control with minimal adverse effects. Despite reports of various studies comparing different analgesic techniques during ESWL, guidelines for pain management during ESWL are not established. Pain management is usually undertaken by the urologists on the basis of their own experience often resulting in a 'hit or miss practice'. The music listening may play a role for pain control during ESWL therapy.

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# Session P1.4: Dealing with chronic diseases

An Investigation of the Post-Acute Care Model of Stroke Patients -Using Hospitals in the Southern Taiwan as Examples

# LIANG Shiow-Ching, LIN Tzu-Chuan, CHANG Chih-Ming, YEN Chia-Chi

#### Introduction

Stroke has high mortality and mobility rates. To reduce the residual effects of acute diseases, one of the key factors is to provide physiotherapy as soon as possible. This paper investigates the Post-Acute Care (PAC) Model of Stroke Patients.

#### Purpose/Methods

Subjects were recruited from patients as being diagnosed acute stroke attack;May 2014 to October 2015. Subjects were patients with stable medical conditions, mild to moderately severe mobility problems, active in receiving physiotherapy, and who met these criteria for inclusion. Individualized treatment plans were formulated by the PAC team. These provided integrated care, high-level of physiotherapy. Before and after the treatment,Modified Rankin Scale(MRS), Barthel Index(BI), Euro QoL-5D(Q5D), Lawton-Brody IADL Scale(IADL), Functional oral intake Scale(FOIS), and Mini Nutrition Assessment (MNA) were performed.

#### Results

A total of 42 individuals were recruited. 41 individuals completed the assessments. Among them, 27 were male and 14 were female. Using t-test, a comparison between pretest and posttest of MRS, BI,Q5D, IADL, FOIS, MNA criteria were performed. Results showed a significant difference. It demonstrated that PAC patients improved their functionality significantly. The magnitude of improvement of MRS3 of BI and MNA was significantly greater than MRS4 which clearly shows that individuals of high-level functionality have higher possibility for recovery.

#### **Conclusions**

The study discovered that in the two criteria – BI and MNA, highly functional individuals have higher possibility for recovery. In other words, during the golden treatment period, specialists should provide immediate integrated care. Giving holistic care to patients can slow down both physical and psychological changes, restore functions, and delay the loss of abilities.

#### Comments

It is recommended that the object of future implementation can be expanded and implemented on patients who suffer from other diseases that cause disabilities. Moreover, the additional control groups can increase the effectiveness of the investigation of this model.

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Improving nursing personnel's swallowing assessment skills and effciencies in training stroke patients.

## WU TUNG-YUN, HUANG HSIAO-WEN, FANCHIANG YU-CHEN, LI CHIA-LIN, CHANG YU-FANG, HSU CHI-CHEN, CHUANG SHU-TING, CHIEN SOU-HSIN

#### Introduction

Many clinical stroke patients have difficulties swallowing. Because nasogastric tube is inserted into early stage stroke patients, swallowing rehabilitation for patients after nasogastric tube removal is important. In Taiwan, due the lack of rehabilitation specialist, inpatients rely on clinical nurses for rehabilitation assistance. However, according to statistics, few patients have removed their nasogastric tubes prior to discharge. This study aims at improving the swallowing assessment and training abilities of nurses for safe and early removal of nasogastric tubes among patients.

#### Purpose/Methods

A "swallowing assessment and training knowledge questionnaire" was utilized for assessing nurses' knowledge. Retrospective patient record reviews, the nursing records of patients with inserted nasogastric tube, was performed to understand training progress. Swallowing assessment protocols were established, including placing a "training record card" at bedside, establishing "swallowing difficulties" nursing problem sets, establishing a training article. Through these employee educational training, the nurses' swallowing assessment and training abilities were improved, and success rate of nasogastric tube removals among patients increased.

#### Results

Between March 1st to March 31st, 2015, 20 nurses were evaluated to determine the efficiency of the improvement program. The results indicated that swallowing training knowledge accuracy increased from 50.4% to 100%, and the proper swallowing assessment and training execution rate increased from 33.3% to 83.3%.

#### Conclusions

Many stroke patients are often cared by foreign care givers. However, the current training education materials were only produced in Mandarin. The care method may not be communicated to these care givers due to language barriers. Therefore, it is suggested that the training materials can be translated into different languages for the care givers of different nationalities to improve their swallowing assessment, training, and care quality.

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# **Effects of Finger Extension Orthosis Training in Chronic Stroke Patients**

#### **KU Fang Ling**

#### Introduction

Weakness in finger extension movement is commonly observed in stroke patients, and literature reported that presence of active finger extension predicts functional recovery. Although robotassisted therapy is effective, the cost of equipment is high, which limit its application. To the best of our knowledge, no randomized controlled trials have investigated the effect of finger extension training with dynamic hand splint, thus, the aim of this study was to investigate the effect of finger extension orthosis training to stroke patients.

#### Purpose/Methods

Participants were randomized to orthosis group (N=6) or control group (N=4), the orthosis group practiced finger extension movement with the RISER® and the control group received conventional occupational therapy. Each group received treatment for 40 min/d and 4~5 d/wk for 8~10 weeks. Outcome measures included Fugl-Meyer Assessment (FMA), muscle strength, Modified Ashworth Scale (MAS), Box and Block Test (BBT), Wolf Motor Function Test (WMFT), Functional Independence Measure (FIM), Motor Activity Log (MAL), and Stroke Impact Scale (SIS).

#### Results

After training, the orthosis group improved significantly more in muscle strength (p=0.01) and the quality of movement subscale of WMFT (p=0.05) than the control group. The orthosis group had positive trend in improving more in FMA (p=0.13,  $\eta$ 2 =0.30), MAS (p=0.29,  $\eta$ 2=0.16), and BBT (p=0.20,  $\eta$ 2=0.23) than the control group. Also, the improvement of the orthosis group in FMA reached clinically important difference ( $\Delta$ FMA=6.0).

#### **Conclusions**

This study aimed to investigate the effects of finger extension orthosis training to severe impaired stroke patients, the results showed that orthosis training is effective in improving muscle strength and quality of movement. This training allowed patients to train independently of a therapist, and the cost of equipment is relative low to robot-assisted therapy, in addition to hospital-based training, it is also suitable for the promotion of home-based training.

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The effect of whole body vibration on upper extremity spasticity in chronic hemiplegic stroke patients

LIU Wei-Lin, YEN Pei-Yuan, TSAI Chiu-Chin, CHEN Chia-Hsin

#### Introduction

The upper extremity spasticity in stroke patients is always a serious problem to limit limb performance and lead to bad quality of life. The aim of this study was to compare the effects on upper limb performance after 6 weeks of upper limb vibration training plus traditional rehabilitation training and traditional rehabilitation training only in chronic hemiplegic stroke patients.

#### Purpose/Methods

This study was a randomized controlled trial. Thirty subjects with first-time stroke and at least six months post-stroke were randomly assigned to either the upper limb vibration group (ULV group) or the traditional rehabilitation control group (Con group). The subjects of the ULV group accepted 30 minutes traditional rehabilitation training and 5 sets at a time of upper limb vibration training. The subjects of the control group received traditional rehabilitation training only. All subjects received interventions for three days per week for six weeks.

#### Results

The subjects of the two groups were assessed outcome measures before and after intervention. The outcome measures included muscle spasticity, functional performance, and daily use and movement quality of paretic upper limb. The changes of the ULV group between pre and post test were significantly different in the amount of use scale of MAL-28. The changes of the Con group between pre and post test were significantly different in gross movements and total scores of ARAT.

#### Conclusions

The traditional rehabilitation training can improve performance of paretic upper limb of stroke patients. However, this study indicated that with upper limb vibration training was no significant treatment effect, but it still can improve the frequency of use of paretic upper limbs as patients' confidence increased.

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The effect of the combined exercise and intake of fruits and vegetables in hypertension prevention in elderly Taiwanese

#### **HSIEH MING-LI, LIN Yen-Nien**

#### Introduction

Background: High blood pressure was resulted from many factors. Previous literatures have indicated increase physical activity and intake of fruits and vegetables reduce the risk of hypertension. However, it is not known the effect of hypertension prevention with concurrent increase physical activity and intake of fruits and vegetables. Aim: We aimed to explore the effect of hypertension prevention with concurrent increase physical activity and intake of fruits and vegetables.

#### Purpose/Methods

We analysed databank "the Survey of Health and Living Status of the Middle Aged and Elderly in Taiwan" within 1999 and 2007. There were 4,400 people above 53 years in 1999. People with cancer, hypertension, stroke, and incomplete data were excluded. At last, 2,837 people were enrolled in this study. Statistic analysis was performed with IBM SPSS statistics 21.0.

#### Results

Concurrent high intake of fruits and vegetables and high exercise activity (high intake and high exercise) group has lower prevelence of hypertension than low intake of fruits and vegetables and low exercise activity (low intake and low exercise) group [decreased 2.15 times; p=0.001]. Similarly, isolated high exercise group has lower prevelence of hypertension than low intake and low exercise group [decreased 2.14 times; p=0.005]. Isolated high intake group Isolated high intake group has lower prevelence of hypertension than low intake and low exercise group [decreased 1.8 times; p=0.01].

#### **Conclusions**

The results of this study showed that concomitant high exercise activity and high fruit and vegetables intake, isolated high exercise activity, and isolated high intake of fruits and vegetables will reduce the incidence of high blood pressure. This result correlated well with previous studies in other country. Out study suggests the importance of exercise and high fruit and vegetables intake and highlighted merit of the elderly education.

#### Comments

This result correlated well with previous studies in other country. Out study suggests the importance of exercise and high fruit and vegetables intake and highlighted merit of the elderly education.

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The effect of intervention on people aged 25 and older with hypertension received medical examination in the hospitals and clinics of Health Cooperative Saitama

## FUKUBA Isao, MIZUNO Kyoko, OMATA Reiko, OOTUKI Yumiko, MEZAKI Toshiko, NAKAMURA Daisuke, ONO Midori, AKIBA Yoko

#### Introduction

April 2013, WHO announced that the people aged 25 and over who are diagnosed of hypertension exceeded 1 billion in the world in 2008, and then one in three adults aged 25 and over had hypertension, and called for intensified efforts to prevent and control hypertension. We decided to examine whether improvement of the blood pressure was attained by early intervention for people whose blood pressure was equal to the standard of hypertension by the medical examination or not.

#### Purpose/Methods

From June 2014 to November 2015, we handed a blood pressure notebook for people who received medical examination with

blood pressure more than systolic 140mmHg and/or diastolic 90mmHg and recommended blood pressure self-check continuously. In addition, we gave information about hypertension and lifestyle using a pamphlet. We acquired information about BMI, smoking, alcohol, and the labor situation from the questionnaire of the medical examination. We assumed people who had hypertension but were not intervened for control group.

#### Results

We performed the intervention to 605 people. Obesity, alcohol, smoking were higher in the hypertension group than in the control group. Daily working hours, working on holidays, latenight work were seen higher in the hypertension group than in the control group. As for the results of the next medical examination, blood pressure was improved in 24.1% of the interventional group, while in 23.5% of the non-interventional group.

#### **Conclusions**

We performed intervention for high blood pressure group including procedure of sodium-restriction and self-check of home blood pressure, and improvement of the blood pressure was attained. But the intervention is insufficient only by the instruction of sodium restriction and the self-check of home blood pressure. In other words, it is necessary to perform integrated intervention for smoking, alcohol, obesity, the lack of exercise that HPH international network proposed.

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Differences in hospitalizations for heart failure between women and men: Analysis of the Slovenian national heart failure

hospitalizations database

## OMERSA Daniel, LAINSCAK Mitja, ERZEN Ivan, FARKAS Jerneja

#### Introduction

Heart failure (HF) is a global public health problem with excessive mortality and high (re)hospitalization rates that result in significant economic burden. It has been shown that women and men present with different HF phenotypes. Women are usually older and have more diastolic dysfunction of the left ventricle then men. With limited data from large hospital registries and no data from Slovenia, we aimed to analyse differences in HF hospitalizations between sexes.

#### Purpose/Methods

Slovenian National Hospital Discharge Registry was searched for HF hospitalizations (coded as any or main cause) in patients older than 20 years between 2004 and 2012 and linked to National Death Registry. Patients' annual HF hospitalizations per 100,000 population were calculated for each sex and age group and standardized to 2004 Slovenian population. Differences in comorbidities prevalence and profiles were assessed and survival

after the first HF hospitalization was analysed using multivariate Cox proportional hazards model.

#### Results

Overall, 156,900 hospitalizations in 79,865 patients (77 years, 54% women) were identified. Men had higher age specific HF hospitalization rates (2517 vs. 1929 in 2012 and 75-85 years) but lower overall HF hospitalization rates (491 vs. 554 in 2012). Ischaemic heart disease, myocardial infarction, chronic kidney disease, chronic obstructive pulmonary disease and cancer were more prevalent in men, whereas women had more arterial hypertension, atrial fibrillation, diabetes, valvular disease (P<0.01 for all) and better survival after HF hospitalization (HR=0.846, P<0.001).

#### **Conclusions**

Analysis of the Slovenian national HF hospitalizations database demonstrated considerable differences in HF hospitalizations between women and men. Men had noticeably higher hospitalization rates than women across all age groups and higher mortality rate after discharge for HF.

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## A survey of risk factors for Osteoporosis in Chia-Yi city, Taiwan

### **CHEN Chia Hung, CHANG Sheng-Kun**

#### Introduction

This study was designed to survey risk factors of osteoporosis in Chia-Yi city, Taiwan. The collected data were analyzed for the risk factor intensity of osteoporosis with statistical methods. Then, these risk factors could be evaluated the role of diagnosis in osteoporosis. We hope the result of this study enabling be alert before cancellous bone fracture occur.

#### Purpose/Methods

We divided the risk factors of osteoporosis into six categories general, lifestyle, diet, drugs, disease, bone density. The collection of questionnaires and consent forms signed by a total of 1000 copies in randomize from June 2013 to August 2014. The subjects sources include inpatient, outpatient, health check, and all of them are twenty tears old or more whom were receiving bone density examination. All of the examination were completed by the GE Healthcare Lunar Prodigy.

#### Results

For the predictive ability of risk factors influencing bone mineral density, we use the linear regression analysis. Age, weight and smoking have a significant correlation with bone mineral density (P<0.05). For the predictive ability of risk factors influencing cancellous bone fractures, we use the logistic regression analysis. An adult who had a slight fall and fracture, often falls, age and bone mineral density have a significantly correlation with cancellous bone fractures (P<0.05).

#### **Conclusions**

With the result of this survey, we recommend that people should actively monitor the risk factors of osteoporosis, including body

weight, smoking, falls, high blood pressure medication, etc. The maintaining of ideal body weight, quitting smoking habits, the construction of the environment in fall prevention, and the strengthening the muscle function, can reduce the risk of fracture, and reach optimal health aging.

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Effectiveness of Applying Aspiration Prevention Bundle Care to Reduce the occurrence rate of Aspiration Pneumonia: A Case Study on a Teaching Hospital in Taipei

### YUAN Yu-Pieng, HSU Tzu-Chuan, HUANG Hui-Ting, CHUO Ying-Hsiang

#### Introduction

Studies have indicated that patients with intensive care unit admission, dysphagia, stroke, head trauma, subdural hematoma, subarachnoid hemorrhage, and esophageal cancer and frail elderly people aged 65 years and above are the high-risk group for aspiration pneumonia. Therefore, it is crucial that nurses make early intervention as well as to give comprehensive and continuous care.

#### Purpose/Methods

Objectives: This study aims to examine the effectiveness of applying Aspiration Prevention Bundles (APB) care to prevent aspiration pneumonia in high-risk patients. Methods: A cross-sectional research method was adopted. A total of 907 samples were collected purposively from January 2014 to October 2015. The APB care includes completing the bedside swallowing assessment for aspiration pneumonia high-risk patients within 8 hours after hospital admission. Those that failed the assessment were provided with aspiration pneumonia preventative care and guidance. The nurses were assigned to complete a series of APB training courses. The indices involved in this project included the implementation rate of bedside swallowing assessment, and the implementation rate of aspiration pneumonia preventative care to be 90% or over, and occurrence rate of aspiration pneumonia.

#### Results

The implementation rate of bedside swallowing assessment on aspiration pneumonia high-risk patients was as high as 96.3%. And to those patients who failed the assessment the implementation rate of aspiration pneumonia preventative care was 100%. The occurrence rate of aspiration pneumonia was .07% in 2013 but decreased to .006% since day that APB were applied until October 2015. All the nurses completed the APB training courses and passed the tests on aspiration pneumonia preventative care and patient education.

#### Conclusions

The early APB intervention made by the nurses in clinical care can effectively reduce the occurrence rate of aspiration pneumonia among the high-risk patients. Future studies can

sample various healthcare institutions and increase the number of samples to improve the objectivity of the APB procedures.

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# The willingness of discussion advance care planning from family caregiver when caring of chronic disable patient

# CHIANG FU-MING, WU Shu-Chen, WANG Ying-wei

#### Introduction

In Taiwan, an Aging Society has become a major issue. Next of kin caregiver provide most of the care for chronic disable patient at home. Most of the previous research focused on caregiver burden and stress, this study examined the experience of these caregivers on decision of advance care planning (ACP).

#### Purpose/Methods

From June 2013 to September 2013, we conducted semistructured interview with seven caregivers from chronic disable patient's family. Purposeful sampling and in in-depth audiotaped interviews was conducted in order to have the maximum variety of cases according to following characteristics: patientcaregiver relationship (parent, children and partners), receive hospital home care service and care institution (professional care institutions and private home).Interviews were code and analyzed according to qualitative content analysis.

#### Results

Findings delineated four themes and eight sub-themes. These included: (1) Memory: hint inform and professional advice (2) Decision: expectation and unable accept (3) Caregiver Role: introspection and sensation (4) Choice: action and stillness. The core category was "not be a burden" that all participants experienced. Conclusion:

#### **Conclusions**

Good communication with patient and caregiver is incorporated in the principle of health promoting hospital. Advance care planning is a key issue in modern health care system. This study provided important information for discussion ACP with family member having experience in taking care of chronic disable patient.

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### **Life Saving -Early Warning System**

#### **WANG Yu-Chun**

#### Introduction

According to data from Taiwan's 2013 Patient Safety Reporting System, 429 unanticipated cardiac arrests occurred in hospitals, with 73.2% occurred on the wards. The most important preventive step is to reduce the incidence of unanticipated cardiac arrest by screening out those high risk patients and immediately treating them. Early Warning System that uses an information system to automatically issue alerts and help medical staffs spot high-risk patients as soon as possible so that they can receive immediate treatment.

#### Purpose/Methods

The Joint Commission of Taiwan's emergency high-risk patient assessment tools were used in conjunction with the hospital's own physiological indices for the Early Warning System. Specialist criteria were assigned for surgery, obstetrics and pediatrics patients. Once the patient's physiological data have been entered, the system automatically assesses the data and issues an alert so that nurse will contact a doctor. The system also issues notifications to the hospital administrative system, the attending physician and the doctor's digital assistant app.

#### Results

Before the implementation of the Early Warning System, statistics for the January 2013–May 2014 period show that there were 18 cases of unanticipated cardiac arrest on the wards, giving a monthly average of 1.05 cases. After the system came online in June 2014, the period from June 2014 to September 2015 saw a total of 7 cases, a monthly average of 0.44 cases and thus a reduction of 58.1%. This is an outstanding result.

#### **Conclusions**

The Early Warning System focuses on abnormal physiological changes of the patients and uses an automated information system to issue alerts to enable medical staff to spot high-risk patients as early as possible so that they can be treated or referred for treatment. This avoids the possibility of error or delay caused by nurses misreading physiological data, substantially reduces the number of unanticipated problems on the wards and increases quality of care and survival rates.

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# Session P1.5: Promoting health of cancer patients

Implementation of a nation-wide cancer screening program in a suburban hospital - our experience

### CHAO Pei-Ju, LAW Kim-Seng, LI Mei-Huei, KUO Hsiu-Feng, GUO Yin-Jia, CHO Hsiao-Lien

#### Introduction

According to the International Association of Cancer Registries (IACR), the prevalence of cancer has increased dramatically

during the past decades with approximately 14 million new cases in 2012 with even a higher prevalence rate in area lacking an effective screening program. The aim of this study is to evaluate the effectiveness of our hospital in accordance with the policy promoted by Health Promotion Administration, Ministry of Health and Welfare (HPA) by analyzing the data from Jan 2013-Dec 2014 for colon cancer screening (iFOBT), cervical cancer with Pap smear, oral smear for oral cancer and breast cancer screening with mammography. We deducted the contributing factors in achieving our goals and elucidate the effectiveness of early cancer detection through a mass screening program in a suburban hospital.

#### Purpose/Methods

By retrospectively analyzing the data from Jan 2013 to Dec 2014 for four kinds of cancer screened: iFOBT, Pap smear test, oral smear, and mammography We compared the total number of patient screened in our hospital with those of other hospitals in Taiwan and the effectiveness of our screening program by calculating the positive predictive value (PPV) and total number of early cancer detected. The purpose of this study is to provide useful information to guide our policy of cancer screening and through early detection of the above mentioned cancer in order to bringing down the cancer mortality rate in a community hospital.

#### Results

There were a total of 91,409 people screened. We ranked within the top 20 amongst a total of 84 comparable hospitals in regarding to the total number screened with mammography ranking first in 2014 along with Pap smear screening, ranking second in 2014. Furthermore, the average completion rate of positive screening for four types of cancers at our hospital was 83.8% as compare to the 76.6% for other hospitals in Taiwan. For instance, the completion rate of positive screening in 2014 for iFOBT was 75.1%, Pap smear was 86.5%, and oral cancer screening and mammography both at the level of 82.9%. Most important of all, our PPV of the four types of cancer screening was higher than average of other hospitals and within the upper limit of criteria as defined by HPA.

#### Conclusions

Our hospital's effective and outstanding cancer screening program can be contributed to the following factors: Firstly, the close cooperation and timely referral of our clinicians. Secondly, we have four well-trained and caring case managers with good tracing technique. Thirdly, good community promotion programs with close coordination with the surrounding clinics and health center. Finally, as many as 3,122 of lives who were saved through our screening program can be attribute to early detection as well as timely intervention.

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Providing Case Management Model to Improve 3-month Treatment Rate after Diagnosis in Cancer Patient.

LIN Chen-Lin, HUNG Tsai-Tzu, LIU Li-Ching

#### Introduction

Newly diagnosed cancer patients were always feeling helpless, sadness and lots of questions. They may refuse treatment due to misunderstanding or fear. A cancer patient navigator, called cancer case manager, can help patients throughout the cancer journey. Case managers, all oncology nurses, who helped cancer patients by calling on the phone, meeting with them, and going with them to doctor visits. Case managers not only coordinate the patients care, but also care about their psychological and social problem.

#### Purpose/Methods

Purpose: To improve survival rate of cancer treatment by providing cancer patient with sufficient medical information and consequent treatment plans by early intervention of case casemanager at the time if cancer being diagnosed. Methods: 8457 newly diagnosed cancer patients in National Cheng-Kung University Hospital in 2013~2015 were analyzed. The rate and reasons of receiving treatment within 3 months or not, respectively, were calculated. The case management model was applied to explore the factors that affect patient's decision making.

#### Results

In the beginning, there were 14.3% cancer patient who did not receive treatment within 3 months after diagnosis in 2013, including death (0.7%), transfer-out (4.3%), receiving alternative treatment (0.2%), observation or hospice care after diagnosis (3.7%), newly-diagnosed without specific treatment yet (0.8%), and first-time admitted to NCKUH 3 months after diagnosis (3.3%). After the implementation of case management model, the 3-month treatment rate after diagnosis were below 2% in 2014 and 2015.

#### Conclusions

The reasons for cancer patient to receive treatment or not in 3-month after diagnosis can be categorized into 1) Multi-disciplinary concern: poor prognosis or death, cancer-related complications, or no appropriate treatment available; and 2) Patient concern: not ready for treatments due to age or psychological issues, work or economic conflict, accepting alternative treatments and loss of contact. We suggested that the case management model can be promoted and implemented for caring cancer patients.

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The effect of relieving edema using upper limb range of motion measurement instrument for patients underwent breast cancer surgery

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#### Introduction

Breast cancer including axillary lymph nodes dissection tend to cause infection and edema of upper limb at affected side post-operatively. The main treatment is rehabilitation including arm lift massage, comb and wall climbing exercise, The effectiveness of recovery is mostly measured by self-awareness without practical measurement tool. This result in the unknown effectiveness of these exercises We have made "upper limb range of motion measurement instrument" not only increase the convenience of doing the exercises at home and but also track the effectiveness

#### Purpose/Methods

Brest cancer surgery using the clear scaling lines on the upper limb range of motion measurement instrument to adjust height for different body height and measure the maximum open angle of both arms.help the patient knowing the effectiveness then further improving the rehabilitation of the upper limbs, health of body and mind and immune system. At the same time using biofeedback for increasing the motive of continuing exercises. record their mark on the upper limb range of motion measurement instrument

#### Results

In total 33 patient, the average angle was increased from 45 degree to 180 degree, the satisfaction scale was increased from 4.1 to 4.6 (total score 5). 100% of the patients felt very satisfied by the self-awareness of progression everyday. Although the exercises were started after discharge, the encouraging words on the plate left these patient feel and remember the caring and instruction as the nurses are by their side

#### Conclusions

The upper limb range of motion measurement instrument are using for tracking the effectiveness of rehabilitation for patient underwent breast cancer surgery. It could present the angle of should joint more prominent ,be incentive for those patient doing exercise at home spontaneously, increase the abduction and elevation angel of shoulder joint and motive for doing the exercises

#### Comments

There was no known device as this kind of evaluating-incentivereminding tool, and we suggest further promotion of this device for all the patient underwent breast cancer surgery.

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# To Love but not to Cancer- Add value community services with breast imaging and Pap smear test

### HUI-JEN CHEN, FENG-WAN KANG, GUO-XING CHEN, YU-XIN ZHANG, YI-CIAN JHAI

#### Introduction

Tungs' Taichung MetroHarbor Hospital as a health guardian to the community and the Community Health Department follow of our hospital provide a best health service to the community. We work hard for woman's cancer screening. Particularly, female radiologist and doctor are performing the breast examine and Pap smear, respectively. During the screening the physician teaches participants about Kegel pelvic muscle exercise and the nurse demonstrates with a ball. Therefore, women participants may have higher quality of life.

#### Purpose/Methods

We combine many sources such as Health Bureau of Taichung City Government and local Health Center as well as community developmental center to hold many activities to propaganda the information of breast examination and Pap smear as well as Kegel pelvic muscle exercise to not only female but also male. We wish that everyone can understand the important of this exam.

#### Results

Theses breast cancer screening and cervical cancer screening activities has increased from 329 and 351 in 2011 to 625 and 624 in 2014 respectively. There are less than 7500 people and 4500 people take part in breast and cervical cancer screening respectively in 2011 but in 2014 there are totally more than 25000 people accept these screening.

#### Conclusions

As we expect that with more combination of medical sources and many efforts of our team, women participants increase not only more than 100% from 2011 to 2014 but may also improve their secret incontinence problems.

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Chemotherapy related Symptoms and Home Self-care among women with Gynecological cancer during the first time chemotherapy

# TSENG Ya-Hui, HUANG Hui-Ting, CHUO Ying-Hsiang

#### Introduction

Gynecological cancer patients often are anxious and worried when they face the first time chemotherapy. However, because they usually return home immediately after receiving chemotherapy, they often do not know how to deal with the symptoms. This observation prompted this study to investigate chemotherapy-related symptoms and self-care among women with gynecological cancer after returning home from their first chemotherapy session, with the aim of providing insight into the provision of care for women with gynecological cancer undergoing chemotherapy.

#### Purpose/Methods

In-depth interviews were conducted to collect qualitative data on the women's perceptions of their symptoms and self-care. Purposive sampling was adopted to identify women with gynecological cancer who satisfied the inclusion criteria. Informed consent was obtained prior to participation. An in-

depth interview was conducted to collect information on the participants' perception about the symptoms and how they handled these symptoms on their own following their first chemotherapy session.

#### **Results**

The outcome were categorized into two main topics: 1. Perceived symptoms: physical pain, itching or dumbness of limbs, hair loss, change of appearance, weight loss by 2-4 kg, gastrointestinal irritation, a loss of appetite, poor mental acuity, and depressed mood; 2. Self-care for symptom management: monitoring physical reactions, dietary adjustment (i.e., taking food of strong taste, liquid diet, or high-protein diet), ensuring adequate ventilation at home, maintaining skin moisture, exercising, contemplating life, reading motivational books, and chanting scriptures for relaxation.

#### **Conclusions**

Gynecological cancer patients adopted various noninvasive and non-medication self-care methods, and these patients experiences prompt clinical nurses to reflect on their clinical care practice for patients undergoing chemotherapy. Specifically, nurses should be more sensitive toward detecting the perceived symptoms associated with chemotherapy, improving care, and providing consultation to assist in relieving the distress caused by symptoms.

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## The Mediation Effect of Motivation for Basic Psychological Needs in Fecal Occult Blood Tests Positive Clients to Receive Colonoscopy

# CHANG Wan-Shu, FAN Chang-Han, FU Shiu-Yun, K.

#### Introduction

Colorectal Cancer (CRC) ranks top on the cancer incidence list since 2006 in Taiwan (MOHW, 2015). Fecal Occult Blood Test (FOBT) is used for screening and FOBT-positive cases need further confirmation by colonoscopy. Low rate of completion was noted only 58.3% (MOHW, 2015). This study is to evaluate the mediation effect of motivation for the basic psychological needs in the fecal occult blood test (FOBT) positive patients to receive colonoscopy.

#### Purpose/Methods

We collected cases from positive FOBT patients in a community hospital by interviewing and questionnaires. There were 200 cases finished the questionnaires and both test and control groups were equal. The study variables included basic psychological needs, motivation, social situation and receiving colonoscopy. The data were analyzed by AMOS ed.22.0.

#### Results

Our analysis showed direct effect of basic psychological needs and motivation on receiving colonoscopy (t=3.52, 6.82, p<0.05).

We also found indirect effect of basic psychological needs BPN through motivation on receiving colonoscopy ( $\beta$ s=.45). The modified model matches data well in the test of goodness-of-fit ( $\chi$ 2/df=2.935; SRMR=.066; NFI=.923; NNFI=.929; RFI=.897; IFI=.948; CFI=.947; PGFI=.571; PNFI=.692; PCFI=.710; GFI=.857; RMSEA=.099).

#### Conclusions

In the promotion projects of cancer screening, we suggest to add more measures of interventional education model to strengthen the basic psychological needs of common people. Development of strategies of motivation such as skills of motivational interview and increase the colonoscopy rate.

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# Promotion Screening Rate of Colon Cancer in Outpatient by Using the Test of Occulted Blood Stool

#### LEE Yi-Chin, LIU Yi-Heng

#### Introduction

In the year of 2011, Cancer is the most mortality in Taiwan. And in all of the caner, Colon cancer is the first one. If we could early detect, the 5-year survival could be high up to 90%, but down to 10% if late detection. This study is about how to promote screening rate of colon cancer in outpatient.

#### Purpose/Methods

By retrospective review in the last year, we confirmed the patients that could receive colon cancer survey (using occulted blood stool) but not be performed. Of these patients, we contacted them by telephone and took questionnaire survey under the agreement. Then we re-educated the nurses and doctors about the importance of screening, and contacted the village heads to help to temporary taking the samples from people. Then we wish we could promote the colon cancer screening in the next year.

#### Results

In past year, only 59% outpatients received colon cancer screening (data base was from national health insurance). We selected one month to take questionnaire why didn't receive screening(108 patients). Most unknown informations(31%) and didn't understand benefits(24%). We also took questionnaires to nurses/doctors. Expensing too much time to teaching patients is the most(100%). After reeducating nurses/doctors, varied outpatient waiting circles, and contacting village heads to help temporary taking samples from people, screening percentage was increased to 132% in the next year.

#### Conclusion

To promote the screening rate of colon cancer in outpatients, we could not only re-educate nurses and doctors, varied the outpatient waiting circle, lower the time to teaching patients, but also contacted the village heads to help temporary taking the samples from people.

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# New Strategies to Improve the Follow-up Rate of Patients with Positive Stool Occult Blood

### WU Yu-Ting, LI Dian-Kun, HUNG Chao-Chen, LIAO Yi-Hung, CHIEN Sou-Hsin

#### Introduction

In Taiwan, the colorectal cancer is the third most common cancer and the third of cancer death. The government launched the cancer screening policy for early detection of colorectal cancer by stool occult blood test every two years at the age between 50 and 75. To improve the efficacy of colorectal cancer screen, we implanted new strategies to increase the follow-up rate of patients with positive stool occult blood test.

#### Purpose/Methods

First we surveyed the reasons of no follow-up of positive stool occult blood test. The reasons included no symptoms, too busy to follow up, afraid of the colonoscopy discomfort, and considering the cause is related to hemorrhoid. We implanted new strategies to increase the follow-up rate, including mailing the lab report with cancer education flyer, colon cancer education lectures, case manager to follow outpatients and arrange appointments, setting up standard operational procedure and being enrolled in multidiscipline team work.

#### Results

In 2013, the follow-up rate of patients with positive stool OB test was only 72.27%. The follow-up rate increased to 82.61% after the implantation of new strategies.

#### Conclusions

Using the above strategies can effectively increase the follow-up rate in patients with positive stool occult blood test.

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# Utilizing Self-paid Health Examinations for Improving Colonrectal Cancer Screening

LI LEE-CHUN, YEN PEI-CHEN, CHANG LING-CHIEH, CHANG YU-FANG, CHANG LEANG-KAI, HSU CHI-CHEN, CHUANG SHU-TING, CHIEN SOU-HSIN

#### Introduction

According to Taiwan Ministry of Health and Welfare statistics, the top cause of deaths for 33 years has been cancer, and colonrectal cancer is the top three common form of cancer. In term of preventative medicine, the early detection through health examinations can reduce significant future medical resources costs. The further utilization of health management system and personal follow-ups can improve patient treatment effectiveness and outcomes.

#### Purpose/Methods

Self-paid health examination cases with abnormalities were consulted by the examination physician and entered into the major abnormality system by the nurses for referrals to specialized departments. Diagnosed cases and those who received treatment were continually monitored by the system and followed-up by health management nurse.

#### Results

The 2014 annual health examination data of our institution was analyzed. The result indicated that a total of 3,105 cases received self-paid colonoscopy and 8 of which were diagnosed with colonrectal caners (diagnosis rate = 0.26 %). The 8 patients were referred and received early treatment. The continual follow-up indicated good outcomes for all cases, and some patients have expressed overwhelming satisfaction of the continual caring support services of the health managers.

#### Conclusions

Self-paid health examination patients were diagnosed with stage II colorectal cancers. These early stage cancers are often ignored due to the lack of symptoms and missed their optimal treatment timing. The importance of health examination should be advocated, for achieving the goal of early detection and treatment.

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# Higher risk of prostate cancer and thyroid cancer in doctors in Taiwan

## HSU Yueh-Han, TSAI Wen-Chen, CHEN Wei

#### Introduction

The health of physicians may influence the quality of the national health care; only physicians with sound health may deliver high quality health services. With profound medical knowledge and healthcare network, doctors were expected to have lower risk of cancer. However, doctors have heavy work-loads since their student ear, they might not necessarily conduct healthy life pattern. Previous research were inconsistent with regards to area and study design.

#### Purpose/Methods

We investigated the risk of cancer of the doctors in Taiwan from a nation-wide health claims database 2000~2012 and Taiwan Cancer Registry File. We included all doctors aged over 25 who practiced medicine in 2000. The control group included all nonhealth care people with same age limit in 2000. The exclusion criteria were previous history of cancers, AIDS and organ transplant. We conducted propensity score matches with gender, age, residence urbanization and severity of comorbidity.

#### Results

The overall cancer risks in doctors were 10% lower than general population. Among doctors, male doctors had 37% lower risk for cancers. The risk of cancer rose with increasing age and increasing severity of comorbidity. The common cancers in doctors and general population were different. The 6 major cancers in doctors were breast cancer, colorectal cancer, prostate cancer, hepatoma, lung cancer and ovarian cancer. Compared to general population, doctors had higher risks of prostate cancer and thyroid cancer.

#### Conclusions

Doctors have higher risk of prostate cancer and thyroid cancer in Taiwan.

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# Holistic care for children with leukemia

## CHIA WEN HUNG, YUNG WEI CHEN, CHUN MING SHEN, CHIH CHENG HSIAO, CHIA HUI TSAI, LI YING WANG, CHING I YEN

#### Introduction

Leukemia is the first incidence of childhood cancer, among all the childhood cancer, the rate of Leukemia is 31%. Children with cancer need to face the threat of disease and experience physical discomfort and fear. Therefore, health care team should uphold the concept of a friendly medical care, provide the integrated, innovative care service and create a non-trauma health care environment. Those could let each cancer child to transpire the dignified life and transform from pupa into a gorgeous butterfly.

#### Purpose/Methods

First, we integrated resource to develop a patient-centered health care team: Including combine medical, nursing, pharmacology, nutrition, psychological, etc. Secondly, we provided whole process of care: Planning start from outpatient, emergency, in hospital care, disease processes to discharge or referral to home care, etc. Third, use caring service: we implemented intimate care, play of caring, information systems; and developed supplies and aids. Fourth, we built up friendly care including held diversified care activities, patients associations, founding the hospital school etc.

#### Results

The evaluation of 2011 to 2014 as a whole effectiveness, we got 30 pieces distinguished record award per year from families and media review, in academic achievements, we had 22published in domestic and foreign journey, and won 5 Awards. The survival rate of Acute lymphocytic leukemia treatment effectiveness rate for 5-year OS survival was 82%, and Acute myelogenous

leukemia treatment effectiveness was 67%. Bloodstream infection rate 0.2-0.70/00; treatment compliance rate were 100%; service satisfaction for more than 99%, And each year we assisted about 25 cancer children to realize their dreams.

#### Conclusions

Leukemia treatment of cancer children was a long process of fight, the health care team should regard cancer children facing disease treatment of physiological discomfort and stress and family adaptation; and use all aspects of assessment to integrate the resources, provide intimate care, friendly service and health care in whole process. Then, cohesion love, companionship and caring of power to make each child suffering from leukemia can be reborn or alive wonderfully.

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# Session P1.6: Interventions and counseling for (pre-) diabetic patients

Reduced Risk of Metabolic Syndrome through Lifestyle Modification Intervention among Pre-diabetes Subjects.

## LI Yu-Ling, BAI Chyi-Huey, YANG Shwu-Huey, LI Fang-Yu, HSIAO Yu-Ting, CHENG Neng-Hsin, CHIOU Hung-Yi

#### Introduction

Pre-diabetes (defined as high impaired glucose tolerance or impaired fasting glucose) represents an intermediate state, which often progresses to diabetes in the following years. In high risk subjects with prediabetes, the lifestyle intervention program focus on weight loss effectively prevents progression to diabetes and improves metabolic syndrome risk factors. These benefits are the results of improvements in insulin resistance. Thus, the purpose of this study is to assess the effectiveness of lifestyle modification for pre-diabetics of Taiwanese population.

#### Purpose/Methods

We used a study with 2-parallel groups' randomized controlled trial testing strategies to prevent metabolic syndrome in prediabetic individuals. Participants with elevated fasting plasma glucose concentrations (FPG: 100-125 mg/dl) or impaired glucose tolerances (2-h PG on the 75-g OGTT: 140-199 mg/dl) were recruited and randomized to receive a 3-month lifestyle intervention (intervention group) or regular prevention education (control group). Participants were evaluated at baseline, 3th months, 6th months and 12th months.

#### Results

We randomly assigned 342 pre-diabetes persons to control (n=120) or a lifestyle-modification program (n=222) with the

goals of at least a 7 percent weight loss. Participants in the intervention group had greater reductions in fasting glucose, weight, waist, LDL-C than the control group after following 12 months, but the difference were not statistically significant except waist (p= 0.048). Mean reductions in fasting glucose were greater in the intervention (-1.87 mg/dL) than in the control (-1.13 mg/dL) group (P = 0.459)

#### Conclusions

A lifestyle intervention focusing on weight loss did improve the status of blood sugar and the risk of metabolic syndrome in prediabetic adults. A further study with large sample size should be considered. The long-term impact on diabetes prevention and program sustainability warrant further investigation.

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## A Statistical Forecasting of Metabolic Syndrome Risk Factors for Customer of Health Management Center

### CHUANG Chun-Te, CHEN Kuan-Hung, LEE Wen-Hui, LIU Chih-Hui, LAI Ya-Yan, HSU Yueh-Han

#### Introduction

Recently, metabolic syndrome were among middle-aged population. The symptoms at least three of five of the following medical conditions: abdominal (central) obesity, elevated blood pressure, elevated fasting plasma glucose, high serum triglycerides, and low high-density lipoprotein (HDL) levels. Even though these impact factors were important to it, we still tried finding out others factors.

#### Purpose/Methods

Used binary regression analysis to forecast risk factors for metabolic syndrome the data that health management center base from January to May of 2015.

#### Results

After analyzed the data 1,025 customers, we found the cases large waist circumference (OR=4.26, 95%CI=1.002-1.072), large body weight (OR=4.37, 95%CI=1.002-1.072) and always drank half year ago (OR=8.39, 95%CI=1.728-16.976) were higher risk to get metabolic syndrome than normal.

#### Conclusions

Nowadays metabolic syndrome is popular symptoms on the world. If we couldn't control it, always accompanies hypertension, diabetes, triglycerides diseases. After all, we used this study to provide customers and help them make health self-management, because keeping pushing community people's health promotion is community hospital's duty and mission.

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# Analysis shows that diabetes health education assessment tools improve patients blood sugar control

### LO Hsin-Yi, CHI Chiang-Shang, SHIH Ai-Wei, WANG Chic-Chien

#### Introduction

The 2008 American Association of Diabetes Educators suggests that the change of self-care for patients with diabetes should include the following: exercise, diet, medication, monitoring Blood sugar, low blood sugar treatment, to reduce complications and increase self-adaptions. However, often the self-care behavior can not be implemented effectively in daily life. Thus, the carers use health education assessment tools to improve knowledge gaining, strengthen self-care behavior and analyse before and after differences of blood sugar in diabetes patients.

#### Purpose/Methods

A group health education session, total 106 people participated , held once every two weeks using: Steno Diabetes Centre communication card, Diabetes conversation map, DAWN diabetes self-management assessment tool. Weekly telephone interviews to discuss diet and nutrition. 3 months tracking and measuring of blood sugar levels and Body Mass Index (BMI).

#### Results

By conducting the project, the total weight loss was 26kg, the percentage of improvement was 33.3%. The average blood sugar dropped from 10.7% to 8.8% (P<0.05). The average blood sugar level dropped from 223.8mg/dl to 150.4mg/dl(P<0.05.) Patients' self-mentoring blood sugar test were conducted 1-3 times per week, 28.4% respondents before heath education intervention, increasing to 38.2%. The self-monitoring frequency average increases from 2.26 to 3.11 which shows a significant achievement.

#### **Conclusions**

It is difficult to implement self-care for patients with diabetes continuously in day to day life. However, applying multiple self-education approaches can effectively improve patients' self-management in order to achieve the goal of better blood sugar regulation. Through more people applying the assessment tools for diabetes,we hope to enhance the effectiveness of patients' self-management.

#### Comments

By providing patients with the health education can not only increase their self-awareness as well as how to improve and their blood sugar level control. If the health education can be promotion to the community, there are more people get benefits and have a better outcome of heath education over all.

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# The new way to work creates meetings in partnership at the diabetes clinic

#### **CAVRAK Anna, BERTILSSON Åsa**

#### Introduction

Considerable changes in the Swedish Patient Act took place 2015. The new law strengthens the position of the patient, improves the patient's integrity and participation in the meeting with the health care professionals. When the diabetes clinic at Södra Älvsborg Hospital moved into new facilities, the meeting room was designed to create increased patient participation. In the room there is a seating area in front of a television screen, where the patient's medical records and blood glucose curves can be visualized.

#### Purpose/Methods

Purpose: - Making the patient more involved in the care and their medical records. - Increasing patient knowledge about their disease. Method: Patient and diabetes nurse, used the seating area in front of the television screen and uploaded the patient's blood glucose curves via a defined computer program. They read the curves together and they also read and filled in the patient's medical records together. After the visit, the patient was offered to fill in a questionnaire with seven questions.

#### Results

In total, 138 questionnaires were answered. The results showed that 97 percent of the patients were positive to seeing their own medical records and blood glucose curves, 98 percent experienced an increase in participation during the visit, and 93 percent thought that this approach increased their knowledge of how the blood sugar is affected by e.g. diet, exercise, stress and insulin.

#### **Conclusions**

The diabetes clinic new way to organize meetings between patient and diabetes nurse, seems to involve the patient accordingly to the new Swedish Patient Act. It also seems to stimulate health care in partnership.

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# **Effects of Patient's Payment Share for Drugs on Type 2 Diabetes Control**

### OHNO Ryo, UTSUNOMIYA Reiko, HIROTA Noritake, YUUKI Yoshie

#### Introduction

Japan provides universal coverage as health insurance system. Basically, a patient is to pay 30% of total medical cost including drugs, but this payment share may vary according to the age or economic status. In this study, the relationship between diabetic control situation and payment share of patient was examined at

Aozora Pharmacy for Type-2 Diabetes Mellitus (T2DM) patients who were prescribed hypoglycemic agent (HA) by Nozato Clinic.

#### Purpose/Methods

During 6-month study from March 1- August 31, 2015, a research was conducted for T2DM patients on 1) sex, 2) payment share and 3) HbA1c (NGSP: %), to examine if there is any difference by payment share. For statistic analysis, Mann-Whitney U test was employed. The result was recorded as mean  $\pm$  SD. The patient who pays reduced medical and pharmaceutical share due to economic status was defined as M.

#### Results

There were 991 T2DM cases; male (60.3%) was higher than female (39.7%). Among those, 152 was M (47.4% male and 52.6% female with no prominent difference). Among M, patients were under HA treatment (DMM) in 60 cases. HbA1C was significantly high for DMM (p<0.001), since DMM : 7.5 $\pm$ 1.5 whereas non-DMM : 7.0 $\pm$ 1.0 (share - 0% : 7.0 $\pm$ 1.2, 10% : 6.9 $\pm$ 0.6, 20% : 7.0 $\pm$ 0.7, 30% : 7.0 $\pm$ 1.2).

#### Conclusions

Given the result, it became clear that diabetic control is not working well among the patients who have difficulty in making payment for drugs. The reason is because the disparity of social economic environment of patient is having a large impact on the outcome of diabetic treatment. Thus, it was suggested that a fundamental improvement of diabetic treatment might not be possible without a national improvement measure against social determinants of health (SDH).

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# Session P1.7: Promoting healthy nutrition

Analyzing The Variations of Nutrition Status Cancer Patients Based on Use of Scored the Mini-Nutritional Assessment Scale (MNA)

#### SU Yu-Chieh, TU Yi-Chen

#### Introduction

Malnutrition is regarded as a major risk factor for complications and delayed recovery as well increased medical costs in hospitalized patients. In the general older population, there are several reports demonstrating the adverse impact of weight loss or low body mass index (BMI). The study for hospitalized cancer patients, there use Mini Nutritional Assessment Scale (MNA) overall nutritional assessment.

#### Purpose/Methods

The revised version of the MNA tool was used to assess the nutritional status of 122 cancer patients in a hospital between Oct 2015 and Dec 2015. The study analyzed the variations of nutritional status cancer patients in a hospital located in

southern Taiwan by using the scored MNA. The MNA can be divided into two parts: the short form (screening questionnaire) and the full version.

#### Results

Among 122 patients, the MNA scores of 35 cases (28.69%) were lower than 17, who were determined as undernutrition; 38 cases (31.15%) were between 17 and 23.5, and determined as potential undernutrition; and the rest 49 cases (40.16%) determined as good nutrition state. The three patient groups with different nutritional statuses differed significantly in their responses to anthropometrics and global, diet, and subjective assessments.

#### **Conclusions**

The MNA is an established nutrition screening tool useful for accurate evaluation of the current nutritional status of the patients. Keywords: malnutrition, Mini-Nutritional Assessment Scale (MNA), nutrition

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# The effect of traditional Chinese medicine constitution in MUST score at head and neck patient

## CHEN Yu-Hao, HUANG Ching-Hsiu, YEH Ming- Hsien, LIN Nei-Wei, CHIU Hung-Pin, LIN Ming-nan

#### Introduction

Head and neck cancer (HNC) is known to the highest proportion of malnourished in all cancers. Who usually have unbalance traditional Chinese constitution. The Chinese medicine constitution present the health condition of patient. Malnutrition Universal Screening Tool (MUST) is a screening tool for application with adult patients across all healthcare settings including oncology. Higher MUST score represent worse nutrition state. The objective of this study is to evaluate the effect of constitution to nutrition state.

#### Purpose/Methods

This study was in one southern Taiwan Regional Teaching Hospital, from January to December 2013, HNC patients who receive the combined treatment of Chinese and Western medicine. By retrospective research, use MUST to screen malnutrition risk of HNC patients. The constitution is measure by Body Constitution Questionnaire (BCQ). Analysis the MUST score before and after cancer treatment in 49 patient with different constitution

#### Results

After assessment the constitution of patients, there are two constitution groups, Yang-Xu and Yin-Xu. In HNC Stage II, there are 42.9% Yang-Xu patient has higher MUST score after treatment then Yin-Xu (33.3%). In HNC Stage IV, there are 62.5% Yang-Xu patient has higher MUST score after treatment then Yin-Xu (54.3%). The dietitian intervention in Yang-Xu are 5.8 times

during treatment, which similar to Yin-Xu (5.4 times) The average MUST score has also higher in Yang-Xu group before and after treatment.

#### Conclusions

In this study, we discover HNC patient with Yang-Xu constitution has poor nutrition state. Even after nutrition intervention, Yang-Xu patient still has poor out come compare with Yin-Xu. More aggressive nutrition intervention may need apply to Yang-Xu patient to improve nutrition condition. In addition, combine traditional Chinese medicine to correct the Yang-Xu constitution may helpful to clinical condition and nutrition state. More research is needed due to small simple size.

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## Body Weight Maintain Program and Dietary Counseling for Head and Neck Cancer Patients

### HO Hsu-Chueh, LEE Cheng-Yung

#### Introduction

Body weight loss in cancer patients is not only depletion of both adipose and muscle tissues but also a poor survival indicator. Of all cancer patients, head and neck cancer patients probably experience dysphagia and odynophagia due to impaired function of oral cavity, tongue movement, and pharyngeal swallowing. Therefore, body weight maintain seems helpful for survival benefit and medical quality promotion. In 2014, we conducted weight maintain program and dietary counseling for head and neck cancer patients.

#### Purpose/Methods

Prior to dietary counseling, two major factors were identified for weight loss based on literature review: impaired intake function because of anatomy change and oral pain due to sequel to radiotherapy. To restore anatomy change, the plastic surgeon did reconstruction operation. To preserve intake function, we pay more visits and have education for formula food. In general, the program emphasized where we are now, why we eat, what we eat, and how we eat.

#### Results

After implementing program, the dietary counseling was more accessible. After regular visits by the dietary, NG tube was removed successfully from 71% to 100%. Prior to chemotherapy and radiotherapy, all patients had watched video about possible complications and adequate nursing for sequel. During the whole hospitalization, the average rate of body weight loss was lowered from 3.14% to 1.56%.

#### Conclusions

According to patients' feedback, our program maintained body weight effectively, as compared with previous study which suggested that 30-50% of head and neck cancer patients will had more than 5% of weight loss monthly and more than 10% semiannually. In general, oral feeding is superior to NG tube feeding regardless of nutrition supplement or weight maintain.

Therefore, to encourage oral intake, we pay more visits to patients as close observation. The positive feedbacks boost the motivation for body weight maintain.

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## Impact of Intensive Nutritional Counselling in Kidney Transplant Recipients with Long-Term Graft Survival

#### KIISK LIIDIA, ROSENBERG MAI

#### Introduction

Introduction Management of nutrition status is an important component of the complex care of chronic kidney disease patients (pts). After kidney transplantation, renal function recovers and pts appetite tends to increase, leading often to weight gain (WG). The purpose of the study was to estimate an impact of intensive nutritional counselling to kidney transplant (KTx) pts in prevention of post-transplant WG.

#### Purpose/Methods

Subjects and methods We studied 75 clinically stable consecutive non-diabetic KTx pts: in study group 28 pts (12 males, 16 females) and in the control group 47 pts (27 males, 20 females). Anthropometrical and laboratory measurements were performed in study KTx pts 1.5 years after the cadaveric transplantation and then, follow-up (FU) measurements 3 years after the transplantation. Final body weight (BW) was checked 10 years after the transplantation. All pts at our institution are provided appropriate nutritional guidance before discharge after the transplantation but in current study additional intensive nutritional counselling carried out 1.5 years after the kidney transplantation by a dietitian who took into account anthropometrical, laboratory as well as nutritional investigations (food frequency questionnaire-FFQ and the 3-day dietary records analysis).

#### Results

Results FU mean BW was found increased in all KTx pts but in counselled female pts the WG was insignificant. However, the WG after 10 years among the counselled living KTx pts with long-term graft survival was not significant in the all study group KTx pts (male p=0.0680 and in females p=0.3166). In control KTx pts WG was statistically significant in both genders (males p=0.0016; females p=0.0040). The multiple regression (four models) analysis was used to evaluate associations among different anthropometric and lipid variables. The FFQ revealed that the patients consumed different foodstuffs at different frequencies, but there was a tendency to excessive consumption of foodstuffs rich in proteins and carbohydrates in both genders in FM. The consumption of proteins and fat-rich foodstuffs had a tendency of decrease after FU.

#### Conclusions

Conclusion Nutritional counselling is important and should be afforded early and regularly after kidney transplantation to maintain longitudinally body weight and appropriate nutritional

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The investigation of dietary behavior change and CKD stage progress on patients after accepted nutrition education in eastern Taiwan

# LI-XIA Tong, SHI-YU Liu, YU-ROU Lin, WEN-LI Wang

#### Introduction

Kidney disease is the tenth leading cause of death in Taiwan. In northern Taiwan, studies found that patients who received nutrition education, would improve their nutrition knowledge and increase their intake of low-protein supplements. However, there were few studies investigating the education effect on patients of different city background in eastern Taiwan.

#### Purpose/Methods

We investigated the relation between the nutrition education effect on patients with chronic kidney disease (CKD) in eastern Taiwan.200 patients with CKD stage III to V were recruited from the CKD shared care network. They underwent biochemical examination and completed questionnaires. SPSS software was used to analyze the correlation between effectiveness of education and kidney disease progress.

#### Results

Compared with patients whose CKD conditions were deteriorating, there were significantly more patients with improving or maintaining conditions adhering to the recommended protein intake. There were no significant differences in caloric intake and biochemical indices between two groups.

#### Conclusions

Patients who adhered to recommended protein intake have shown better prognoses. Whether patients' better dietary behaviour resulted from nutrition education remained unclear in the present study.

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A project to improve patient attain the ideal nutritional support in the medical care unit

### WU CHIA CHEN, SHIAU WEN ING, CHI JEN YU

#### Introduction

Nutritional support provides critically ill patients with energy and nutrients required to face the demands of their illness and stress. The enteral feeding in critically ill patients is also associated with decreased disease severity, reduced complications, and shortened length of stay. Therefore it is very important to critically ill patients for get nutritional support.

#### Purpose/Methods

We collected data on patients who admitted to the ICU at a medical center in Southern Taiwan. Only 33.33% of patients in our unit were achieving the ideal nutritional support. There were many causes including: 1) insufficient knowledge about the ideal nutritional support for critically ill patients, 2) lack of a nutritional support assessment process, 3) Poor communication between team work.

#### Results

After the following strategies were used:1) promote the concept of nutritional needs of critically ill patients, 2)establishing an enteral nutrition flowchart and popularizing, 3)providing education related to critically ill patients nutrition support, and 4)discussing together with doctors and nutritionists about feeding conditions. Most staff (90%) feedback the nutrition flowchart as easy to assessment about patients' nutritional support and patients' ideal nutritional support improved from 33.33% to 98%(2013-2015).

#### Conclusions

Since malnutrition impact critical patient so much, appropriate nutrition support is important. The role of nutrition in intensive care has transitioned from supporting patients recovery from underlying disease to modulating the disease response and improving the chance of survival.

#### Comments

Nurses can use this information to provide high quality care for patients in intensive care units.

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## Advanced Dietary Counselling Improves Eating Habits in Patients with Severe Depression

### MÖRK Lolita, FREDÉN Susanne, KAUPPI Karin

#### Introduction

In 2012, the Swedish National Board of Health and Welfare published National Guidelines and Methods for preventing disease due to unhealthy lifestyles. Individuals experiencing major depression appear to be less likely to meet those guidelines than those not experiencing mental illness. The Department of Psychiatry at Uppsala University Hospital has

engaged in systematic efforts to promote healthy lifestyles and diet among its patients. In this group, advanced dietary counselling may be an effective method to improve eating habits

#### Purpose/Methods

We screened 203 severely depressed men and women at the psychiatric outpatient clinic using a validated food index, and identified 67 (33%) with "unhealthy" eating habits. Thirty five (52%) of those with sub-optimal diet accepted an offer to receive between two to ten advanced diet consultations with a registered dietitian. To date, 32 of the treated patients have been re-screened six to twelve months after the dietary consultations using the same food index.

#### Results

Of the 32 patients for whom we obtained follow-up data, 26 (81%) had improved their eating habits over the study period, whereas 6 (19%) had the same or poorer diet. 81 percent of the patients reached an index in the "healthy" eating range. The patients with the poorest diet at baseline showed the greatest improvement over time, whereas patients with less severe dietary scores showed more modest dietary improvements.

#### Conclusions

Advanced dietary counselling may be a viable method to improve and maintain healthy eating habits in patients with severe depression. Several studies have shown a link between poor eating habits, obesity and depression, including a "vicious cycle" between the three conditions. Hence, advanced dietary counselling may be an integral component of long-term treatment plans for depressed patients who are overweight.

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# Follow up of 6 month Nutrition Education and Counseling Program for Ischemic Stroke Patients

## LEE HeyJean, SIM Young-Eun, PARK Young Kwon, MOON Ji Young, KIM Sung Heon, KIM Yong Hoon

#### Introduction

We developed outpatient nutrition education and counseling program for ischemic stroke patients. This is a six month program consisted of face to face monthly counseling and weekly phone chekcup for dietary life and modification. Clinical nutritionist assesses dietary life through 24 hour recall method using CanPro at the 1st visit. Nutritionist recommends patients to balance calorie and nutrient intake. Nutritionist also encourage to increase unsaturated fat, protein, dietary fiber and decrease natrium. Counseling is customized according to patient's status.

#### Purpose/Methods

We analyzed 16 patients who participated and completed 6 month education and counseling from January to September in

2015. We compared calorie, nutrient balance and intake of unsaturated fat(n-6), protein, dietary fiber, calcium, natrium between the 1st and 6th visit. We compared the real intake value and the pattern as grouped as optimum, deficiency and excess.

#### Results

Patients showed some differences according to item. All the patients got closer to necessary calorie after intervention. Patients in optimum group of protein and calcium intake increased. Patients in deficiency group of protein intake decreased while patients in excess group of calcium intake decreased. Patients' intake of dietary fiber increased but it happened only among patients who were already in optimum group. Patients' intake of unsaturated fat decreased and that of natrium increased after education and counseling.

#### **Conclusions**

We can see some favorable changes after 6 month nutrition education and counseling program. Patients show more appropriate calorie, protein, and calcium intake after intervention. Patients also show decreased fat intake. Some positive change happens only among patients who are already in practicing well group like dietary fiber intake. These results suggest that we need to focus on some nutrients more such as unsaturated fat and natrium. We also need to focus on not practicing group more.

#### Comments

We show some different findings after 6 month nutrition education and counseling among ischemic stroke patients. This is a preliminary analysis for nutrition program with small sample and it may help us to make nutrition program better.

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# **Nutrition Management of Cancer in A Top Service**

# HOU Wen-I, WANG Hsiao-Mei, CHEN Hsinghui, CHUNG Jui-Jung

#### Introduction

Malnutrition in oncology patients is common and associated with negative consequences. As cancer has been long been the top cause of death in the nation, dietitians play an integral role in our mission to provide effective and comprehensive cancer care. We routinely attend seminars on the nutritional requirements of cancer patients, and our food service is in accordance to HACCP (Hazard Analysis and Critical Control Points) standards, furthering enhancing health and safety of nutritional support.

#### Purpose/Methods

The purpose of this study is to identify appropriate nutrition support for treatment and prevention of malnutrition and reduction of complications. Social workers recruited cancer patients and their families for participation in a structured nutrition program which include nutrition meal teaching classes and counseling. All malnourished inpatients were identified (Malnutrition Universal Screening Tool) and coded in the medical

record. Data such as patient satisfaction, nutritional intake and body weight are compiled for comparison.

#### Recult

Overall satisfaction average rate for nutrition intervention was 95.3% from March 2013 to March 2015. From 2012 to 2014, average weight loss for our head and neck cancer patients was 2.0% after nutrition intervention and medical care. Mean calorie and protein intake significantly increased after intervention (p<0.05).

#### Conclusions

The mean weight loss for head and neck cancer patients during radiotherapy is 5.74% (E Jeffery, et al., 2012) and 6.6% (Jin-Zhi Zhao, et al., 2015), respectively. The mean weight loss of our patients is lower. Approximately 35% to 60% of all patients with head and neck cancer are malnourished at the time of their diagnosis (Alshadwi A, et al., 2013). Nutritional interventions should be initiated prior to cancer treatment and continue after completion of treatment.

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The usually caloric and protein percentage of nutritional support on day 4 would predict better prognosis of ICU patients: a retrospective observational study in Taiwan

### HOU Yi-Cheng, SU Yan-Chen, WENG Pei-Chen, LIU Hao-Wen

#### Introduction

There were no published studies describing the impacts of nutritional support on the prognosis of patients from all kinds of ICU (intensive care unit), including MICU (medical intensive care unit), RCC (respiratory care center) and SICU (surgical intensive care unit). To determine whether different patterns of nutritional support have relationship with length of stay at ICU.

#### Purpose/Methods

We performed a retrospective observation in all critically ill patients with nasogastric tube feeding from MICU, RCC and SICU at a teaching hospital in Taipei Taiwan. The observed duration was between April and November 2013. The descriptive statistics of the patients was performed. Besides, the linear regression was analyzed to elucidate the relationship between the nutritional support (usual body weight caloric and protein percentage) at each day and the length of stay at ICU.

#### Results

Thirty-three critically ill adult patients [23 male patients and 10 female patients (mean age:  $73.7 \pm 11.5$ )] with nasogastric tube feeding patient were enrolled. We enrolled 18, 8 and 7 patients from MICU,RCC and SICU respectively. The usual body caloric percentage of nutritional support on fourth day since admission would predict shorter length of ICU stay (standardized

coefficient: -2.891; p = 0.011). Besides, the usual body protein percentage of nutritional support on fourth day also showed similar effects in reducing the length of ICU stay (standardized coefficient: -2.725; p = 0.014).

#### **Conclusions**

The adequate nutrition support to critically ill patients at MICU, RCC and SICU on fourth day since admission would successfully reduce ICUs length of stay.

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## Nutrition Education and Cooking Program for Patients and Caregivers (CHASE Program)

## SOH Yueen Mun, CHEONG Magdalin, SEOW Grace, THONG Debbie, TEO Angena, TAN Bryan, CHAN Varona

#### Introduction

The National Nutrition Survey 2010 revealed that Singaporeans who usually dine at hawker centers, coffee shops and/or food courts for lunch and dinner rose notably from 46.7% in 2004 to 56.9% in 2010. Dining out tends to be an unhealthy practice as most hawker food favorites are excessive in fat, saturated fat, cholesterol and salt. Among Singaporeans (between 18-69 years old) who attended government polyclinics, 62.1% sought medical attention mainly for one or more chronic diseases: diabetes, high cholesterol and hypertension.

#### Purpose/Methods

The CHASE (Cooking Healthy And Saving Extra) program is designed to teach selected patients and/or caregivers how to prepare healthier home-cooked meals on a budget. The main objectives of the program are to: (i) improve knowledge on the association between diet and disease; (ii) teach cooking skills, to prepare quick, healthier meals on a budget; and (iii) improve the management of chronic diseases. This interactive program, conducted by a dietitian and chef, consists of nutrition education, hands-on cooking and a supermarket tour.

#### Results

Overall, the participants had an increase in knowledge of dietary management of chronic diseases, of food safety, label reading, meal planning, recipe modification, and food budgeting. This was observed from the scores of the participants' respective pre and post session questionnaires. After the completion of the program, participants also applied their skills and were found to have increased their frequency of cooking and eating at home. This encourages participants to adopt healthier eating habits economically with potential positive clinical outcomes.

#### **Conclusions**

This interactive program on a targeted group confirms improved response and effective application of both knowledge and skills especially for participants who were initially not confident about cooking. It helps to correct the mindset that cooking at home is

expensive. The CHASE program is therefore effective in teaching and empowering individuals to prepare healthier meals at affordable cost to better manage their chronic diseases. In addition, the program can be replicated in the community.

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## The Use of Smartphone Communication Application in Weight Loss

#### LING yuen-yuen, HUNG ke-chen

#### Introduction

According to 2013 Nutrition and Health Survey in Taiwan (NAHSIT), the prevalence of obese and overweight in Taiwanese adult is as high as 38.3%. As a HPH, we feel responsible to improve the health of our community. We hold weight loss programs regularly. With the development of communication technology nowadays, communication application on smartphone made it easy to communicate. The application [Line] is used in our 2015 weight loss program the first time to help promoting the weight loss results.

#### Purpose/Methods

Our study is to investigate if using communication application in weight loss program promotes the result. 2014 program is the control group kept written food record. 2015 program is the experiment group kept food record by smartphone and sent the pictures of meals to the dietitians. Both programs compose of 6 weeks nutrition lectures, exercise, and food record. Weight and the nutrition knowledge are measured every week. The 1st and 2nd month weight after the program ended were followed.

#### Results

16 participants, adults with BMI>27kg/m2, were recruited in the both groups. There is no significant difference in gender, age, height, original weight, BMI, and knowledge (p>0.05). The experiment participants average weight loss was 4.15kg after 6 weeks program, 2.24kg at the 1st month, and 3kg at the 2nd month follow-up. The experiment group lost more weight than the control group (p=0.003), 35.5% improvement of nutrition knowledge, 100% allow the positive attitude of maintain healthy diet and exercise to weight control.

#### Conclusions

With the feature of communication application, it makes the in time communication and online consulting possible. The participants gained more confidence choosing food with frequent feedback and personalized recommendations from the professionals. From the aspect of dietitians, pictures of meal provide more accurate caloric info than the written food record. The use of communication application in the weight loss program might prove to be a productive tool to promote weight loss result.

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# Effectiveness of multidisciplinary weight-control program combining cookery class for a medical center employees

### FENG Hsin-Chun, CHEN Hui-Chuen, KUO Yueh-Hsia, CHENG Chin-Pao

#### Introduction

2010 Taiwan Health Promotion Administration annual report indicated that percent of overweight and obesity in workplaces were 22.7% and 11.8%, respectively. Men were more likely to be obese than women. 50% male employees were either obesity or overweight. Obesity is major risk factor for chronic diseases. Healthier employees are more productive. Therefore, dietitians worked with physicians, and physical therapists to set up a weight-control program to promote employees' health and wellbeing in National Taiwan University Hospital (NTUH) since 2012.

#### Purpose/Methods

A total of 60 employees with BMI>24 kg/m2 were recruited in 2015. This was a biannual, 3-month multidisciplinary weight-control program, sponsored by NTUH. Nutritional intervention was comprised of one speech and 4 group-teaching courses about "healthy diet for weight loss", and one low-fat-low-calorie cooking skill lesson. Additionally, individual nutrition consultation was open twice for participants with BMI>27 kg/m2 and fourth for BMI>30 kg/m2. Body composition was measured before and after intervention. Participants could buy low-calorie-lunch box in employee dining room.

#### Results

42 participants, 18 male and 24 female, were analyzed. After intervention, total weight loss was 128.2kg for all participants (mean=3.1). Percent of employees with obesity were reduced from 69% to 52.4%. Mean of body weight (p =0.008) and BMI (p <0.001) also were decreased significantly. Furthermore, more body weight (p=0.031) and BMI (p<0.001) reduction were found among employees joining cookery course twice. Cookery-course Satisfaction Investigation showed that participants were 100% satisfied with activity arrangement, location, and flavors of dish.

#### **Conclusions**

Worksite health promotion is a comprehensive approach to improve health and includes awareness, health education, behavioral change, and organizational health initiatives. Combination of enhancement of nutrition-related knowledge and cooking practices establishes the basis for promoting effectiveness of a multidisciplinary health promotion and weight-control, moreover, provides long-term benefits for employers.

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#### **Meatless Monday**

## ANG Yen, CHUN Teik Lan, CHONG Ellena, KRANCARI Molly, LOH Hwa Ling, SEE Wee Dee, CH'NG Keat Hui

#### Introduction

Plenty evidence indicates that a vegetarian diet is healthier than a meat-based diet. However, dietary change is not easy; studies show that an effective way to help change is through baby steps. There is a need for a health promotion initiative that allows people to progressively change their taste bud, and to eventually ease into the new dietary habit. Meatless Monday—a campaign encouraging people to give up meat just one day a week, is probably a gentle way to help effect change among a population who consume inadequate vegetables but too much meat.

#### Purpose/Methods

The purpose of the campaign is to encourage hospital employees to go meatless once a week, rather than total abstinence from meat. Every Monday the hospital cafeteria would serve special and delicious vegetarian meals. A special Meatless Monday corner was set up for a period of 3 months. Employees were encouraged to make a pledge about going meatless one day /week and to display it publicly on the wall of the cafeteria. Information about Meatless Monday and its benefits was sent to all staff through emails twice a week.

#### Results

About 15% (n=165) of the employees made the Meatless Monday pledge. An average about 100 people bought the Meatless Monday meals each Monday. Based on the random surveys conducted before (n=804) and after (n=576) the campaign, it is found that: Self reported daily consumption of fruits and vegetables did not change much (from 22.8% to 23%; and 44.4% to 45.3% respectively) but daily meat intake has decreased from 30.3% to 17%. Willingness to consume fruits and vegetables is improved by 7.3% (74.7% to 82%). Awareness and knowledge of the benefits of a meatless diet is increased by 14% and 13.7% respectively. The campaign encouraged 67% of them to eat more vegetarian meals, and 86% of them to eat more fruits. About 71% of them reported they would plan to continue to go meatless one day a week after the campaign, while 61.5% of them said they would go meatless more than one day a week.

#### Conclusions

The campaign did not dramatically change the current dietary habits of the employees in 3 months, but it did improve the attitude of the people towards consumption of fruits and vegetables, increased awareness and knowledge of a meatless diet, and encouraged them to eat more vegetarian meals. Notably, the health promotion campaign, though short, did affect people's future intention to abstain from meat in their diet.

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# Adherence to mediterranean diet in rural population with metabolic Syndrome in Northern Taiwan

### YU Ya-Ting, CHEN Pey-Rong, LIN Hsing-Tzu, HUANG Sheng-Chien, YEH Yuan-Chieh, SU Ta-Chen, CHENG Chin-Pao

#### Introduction

Mediterranean diet has been shown as a healthy diet to reduce metabolic syndrome risk factors and prevent from cardiovascular disease. The dietary behavior converted to score can be used to investigate the dietary pattern and an indicator of healthy diet.

#### Purpose/Methods

The purpose of this study was to assess the adherence to the Mediterranean diet of rural population in northern Taiwan. One hundred and eighty one participants (45-75 yr, 44.2 % male/ 55.8 % female) with risk factors of metabolic syndrome were recruited from hospital, public health center, work place or community. Using an 15-items modified-Mediterranean dietary questionnaire (m-Mediet score, 0-15 points) to assess dietary patterns.

#### Results

The results showed that only 22 % of subjects m-Mediet score more than 9 points, and another 20% of subject's score less than 5 points. The m-Mediet score in women was higher than men (7.4 $\pm$ 2.1 vs. 6.7 $\pm$ 1.7, p<0.05). Furthermore, women (26.7 %) had higher percentage of having healthy diet pattern (score  $\geq$  9 points) than men (16.7 %). While divided to three age groups (45-54, 55- 64,  $\geq$ 5 years), we found that elder group trend to eat more healthy diet.

#### **Conclusions**

The study showed that the low adherence to the Mediterranean diet in rural population with metabolic syndrome in northern Taiwan. Aggressive dietary education programs are needed for rural population, especially middle-aged group and male.

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# Sodium Intake in Rural Population with Metabolic Syndrome in Northern Taiwan

## CHEN Pey-Rong, YU Ya-Ting, CHIEN Kuo-Liong, SHIH Chih-Yuan, HWANG Juey-Jen, CHAN Ding-Cheng, CHIEN Yi-Wen

#### Introduction

Excessive salt intake is closely related to high blood pressure and other cardiovascular diseases. World Health Organization 2025 set guidelines for reducing sodium intake of 30 percent to promote health; the American Heart Association recommends a

daily sodium intake of 1,500 milligrams or less in order to improve blood pressure.

#### Purpose/Methods

The purpose of this community study was to evaluate sodium intake of rural population in northern Taiwan. A total of 109 (Male 43 / Female 66) subjects in high-risk of metabolic syndrome enrolled through hospitals, clinics and places of work or community, aged 45-75 years (average 59.8±7.8). One-spot morning urine collected for calculating the estimated 24-hour urinary sodium by published formula.

#### Results

The results showed that among subjects 2.7% took less than 1500 mg; 10.1% (1500-2399 mg); 29.4% (2400-2999 mg); 43.1% (3000-3999 mg); 14.7% (greater than 4000 mg). Percentage of women (16.7%) having healthy sodium intake (<2400 mg daily) was more than Men's (6.9%). There was no significant difference between age groups for sodium intake. People's dietary habits of highly adhere to Mediterranean diet did not have lower sodium intake.

#### Conclusions

This study indicated that most of rural residents with metabolic syndrome in Northern Taiwan ate sodium more than recommended level. Health promotion program can be considered local cultural diet and based on a simply measurable urine sodium method in order to increase the effectiveness.

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# Establishing a Healthy Diet Behavior by Making Healthy Biscuits

## YUN WenTzu, CHEN YiHsun, CHIU Chingl, LU YiTing, YEUNG ChunYAN, TSAI ShuLing, TSAI MeiChich, YANG YuRu, CHAN Hsin-Lung

#### Introduction

A healthy diet during childhood can promote optimal health, growth and cognitive development and may contribute to the prevention of chronic diseases in later life. It is important to establish proper knowledge on healthy nutrition and eating behaviors early in life. We know biscuits are the most general and favored food for children, we can develop and launch an effective program to establish a proper and healthy diet behavior by making healthy biscuits in school-aged children.

#### Purpose/Methods

This study evaluates the efficacy on establishing a proper healthy diet behavior after launching the "Making Healthy Biscuits" program for school-aged children. Twenty-five children (10–12 years old) were enrolled through the QR code online registration system. The program was held at our hospital in February 2015. Our dietitians introduced the concept and importance of proper and healthy diet behavior and explained the differences in the food ingredients used between commercial biscuits and selfmade healthy biscuits. Besides, our hospital chef instructed the

children to make their own high-calcium and high-fiber biscuits. Children were also requested to fill out the pre-test and post-test on nutrition knowledge and finally answer the questionnaire on satisfaction. We followed up all the children and assessed the anthropometric parameters and healthy diet behavior 7 months later by telephone visit

#### Results

All the 25 children completed the program and assessment, initial average BMI was 17.74±3.36 kg/m2 with BMI-for-age Z score :-0.21. We used the 5 points Likert scale to assess the concept of nutrition knowledge before and after the program. The summation score increased from 55.2±17.59 points to 92.8±11.37 points. Satisfaction analysis included "understanding of course content" (4.64±0.57 points) and "substantial help" (4.84±0.37 points). Overall satisfaction score was 4.76±0.60 points. On follow-up 7 months later, an average BMI of 17.91±3.54 kg/m2 was measured with Z score :-0.36 .Seventy-nine percent of the children were found to have healthy diet behaviors after the program.

#### **Conclusions**

Our "Making Healthy Biscuits" program have brought a fully new experience to children. Children make their own healthy biscuits under an educative, innovative and entertained atmosphere instead of listening to traditional nutrition lecture in the hospital. Their knowledge on nutrition and eating behaviors have greatly been improved according to the questionnaire analysis. Almost all of the children are willing to change their inappropriate eating behaviors. We conclude that "Making Healthy Biscuits" program is worth for promotion in school-aged children.

#### Comments

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# Dietetic Interns' Event-Planning Development Through Community Health Promotion Activity

### CHIH-JUNG Ho, YIN-MEI Su, CHANG-JUNG Lin, EN-CHI Chu, MEI-YU Tu, MEI-YUAN Liu

#### Introduction

In Taiwan, community health promotion activity is advocated by the medical team to raise the public health awareness through different health issues advocacy. Registered dietitian is one of the specialists in community health promotion. However, there is quite low opportunity for the dietetic interns to participate in community event planning during their study. The Chi Mei medical center in Taiwan annually conducts community health promotion activity. By partaking in this event, registered

dietitians can guide dietetic interns developing professional competence.

#### Purpose/Methods

Our dietetic interns are measured the effectiveness of their training based on the Assessment of Professional Competence (APC) of Community Nutrition Promotion. A total of 8 projects of the assessment are listed in the following: draft plans, propagation methods, program design, poster construction, relevant departmental networks, public speaking and communication skills.

#### Results

The projects of the Assessment of Professional Competence (APC) enable these dietetic interns to have a better understanding of the learning objectives in community nutrition promotion. In addition, preliminary discussion motivates their activity participation with a sense of responsibility. And, performance reviews allow them to correct their mistakes and discuss their growth and future in this professional.

#### Conclusions

Community health promotion activity can not only improve the nutrition knowledge of the community, but also develop dietetic interns' skills in event planning and executive functions.

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# Healthy and low-fat street foods made from vegetarian ingredients.

# CHEN Jiyuen-Tieng, TSAI Hsiao-Jung, LIN Su-Ji, TSAI Chia-Lun, CHAO Tzu-ching, CHUO Ying-Hsiang, HUANG Hui-Ting

#### Introduction

People love delicious dishes. In Taiwan, there are many delicious street foods in our life. However, delicious dishes usually have more energy or fat that increases the risk of chronic disease. Most people believe that delicacies seem to be the opposite of healthy dishes. Nevertheless, we believe that dishes that is made from vegetarian ingredients can both meet deliciousness and health.

#### Purpose/Methods

To create delicious and healthy vegetarian dishes that promote general health. Between May and September in 2015, we firstly collected recipes of regular street food served in night market. Secondly, we substituted regular ingredients of street food with healthy vegetable ingredients which are cooked by low-fat cooking methods, such as boiling, braising, stewing, steaming or roasting. And finally, we analyzed and calculated the nutritional contents.

#### Results

We collected 6 recipes of regular street foods, including Four-Herbal Soup, Fried rice noodles, Oyster omelet, Rice tube pudding, Spring rolls, and Stinky tofu. The average energy and fat contents in regular dishes were 434 $\pm$ 71 kcal and 23 $\pm$ 4 gram per

serving. On the other hand, the average energy and fat contents in our modified vegetarian dishes were 118 $\pm$  46 kcal and 3 $\pm$  2 gram per serving. There was a significant decrease in average energy and fat by 73% and 88 % in our modified vegetarian dishes.

#### **Conclusions**

We all know that obesity was due to excessive energy intake which can further result in many chronic disease. Therefore, we created vegetarian dishes to decrease energy and fat intake. Lower energy and fat were found in our vegetarian dishes than regular ones. By offering healthy vegetarian dishes, we can further promote the general health of staff and customers.

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## Low Salt Diet, Healthy Life - The Effectiveness of Salt Reduction

### CHAN HSIN-LUNG, HUNG TA-CHUAN, LAIO LEE-HUA

#### Introduction

High salt intake is the major cause of hypertension and cardiovascular disease. Taiwan general populations have 1.5 fold higher daily salt consumption than recommendation. MacKay Memorial Hospital together with community school, restaurant, and village office promote salt reduction education program by multiple strategies. We hope these activities can establish good diet concept and habit in community populations.

#### Purpose/Methods

We promote this education program from May to November 2015. We held education lectures and served low salt food in our hospital. Local restaurant were directed by our dietician to create new menu containing low salt. In order to increase awareness, we placed posters in restaurant about sodium amount in each dish and healthy diet guidance maps in village office. In MacKay Health Day activities, we demonstrate fresh healthy food and offer cooking counsel.

#### Results

We held eleven low salt diet lectures with 958 participants. It achieved up to 97% awareness rate post lectures. Thirteen restaurants and 51 new recipes were directed by our dietician. People had 92.3% satisfied rate ordering low salt menu by our poster and maps promotion. 335 people joined our Health Day low salt activities. We also awarded cooperated restaurant at the end of year.

#### **Conclusions**

In modern society, people prefer eating outside than cooking by themself. We create new strategies together with local restaurant and village office to establish healthy low salt diet habit in community. We hope these activities can help people having a healthy life.

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# Session P1.8: Health promotion through physical activity

A study of the weight-loss behaviors and affecting factors of the people attending the healthy weightreducing class of the local hospital in South Taiwan

## CHEN Chine Chun, CHEN Herng Huey, CHEN Chien Min, LIN Shuen Fa, WANG Yuh Wei

#### Introduction

The purpose of this study was to investigate the correlations among self-efficacy, social support, compliance behaviors, and weight maintenance after weight reduction of patients. It is hoped that results of this study will help those who seek weight control and treatment.

#### Purpose/Methods

This study utilized cross-sectional survey. Data were collected by a self-administered structured questionnaire. The professional content result and creditability in the questionnaire reached acceptable levels (CVI: 0.85~0.93; Cronbach'sα: 0.75~0.94). Patients were included only if matching the following criteria: 1. Were obese (BMI>24) and sought weight control during the period in the weight-loss class of the local hospital of May 2015 to July 2015; 2. Weight loss was over 3% of initial weight; 3. Age between 18~64; 4. Treatment length was over 3 months; 5. Consulted a dietician, a physiotherapist and a chinese medicine practitioner for their professional opinion during this period. A total of 70 questionnaires were delivered, 51 (72.8%) replied and 51 (72.8%) were valid responses. This study used chi-square test for the varieties of background information, person who realized their weight-loss behaviors and affecting factors, and logistic regression analyses to investigate the relationship of variables.

#### Results

A total of 26 participants (52%) effectively maintained a weight loss after 3 months. The average BMI declined 2.5kg/m2 . There were obvious differences of the age, education, occupation and BMI level after weight reduction of the weight-control data. The most effective predictors of weight maintenance (p<0.05) were the self-efficacy diet control, regular exercise and compliance behaviors of self-monitoring and periodic consultations. Weightloss methods, participating a group and BMI level before weight reduction exhibited relatively lower capability as predictors of weight maintenance.

#### Conclusions

The results of this study demonstrate the importance of self-efficacy diet control, regular exercise and compliance behaviors of self-monitoring and periodic consultations in promoting weight maintenance. During the weight loss and control process, periodic follow-up visits to seek professional advice are highly recommended. In addition, various weight-loss methods were not the related project of effective weight reduction. Therefore, it is beneficial to recognize that controlling weight relies on a long-term well-managed plan.

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# Effects of sports massage on muscle stiffness after short-term strenuous exercise

### YEN Hung, LIN Hsiu-Chen, HSIAO Hong-Wei

#### Introduction

Sports massage is considered beneficial in enhancing athletes' performance and assisting recovery after strenuous exercise. By applying rhythmical pressure and stroking onto the muscles, it could increase blood perfusion, promote healing of strained muscles, reduce pain, swelling and spasm, and assist relief of muscle tension and stiffness. However, limited literature provides evidence to support these benefits. Therefore, this study aimed to investigate the effects of massage on the stiffness of the calf muscles after short-term strenuous exercise.

#### Purpose/Methods

10 athletes, who involve in strenuous exercise regularly, were recruited. The exercise protocol included 10-min jogging as warm-up and running to climb up and down ten floors in 5 minutes. Then massage was randomly applied onto the calf of one leg. Muscle stiffness was quantified by torques and works in passive mode test from ankle plantarflexion 60° to dorsiflexion 20° on an isokinetic machine. Same tests were performed at pretest, after warm-up, and after exercise and massage.

#### Results

Eight variables, including dorsiflexion peak torque (PTQ), plantarflexion PTQ, dorsiflexion PTQ/body-weight (BW), plantarflexion PTQ/BW, dorsiflexion total work (TW), plantarflexion TW, dorsiflexion TW/BW, and plantarflexion TW/BW, were obtained and compared among three measurements using Wilcoxon non-parametric tests. The massage group showed significant differences between the pretest and after warm-up in all variables except for the plantarflexion total work. Similar findings were found between pre-test and after exercise and massage in all variables except for plantarflexion WRK/BW and plantarflexion total work.

#### **Conclusions**

The results of this study indicated that the muscle stiffness would be significantly decreased after warm-up and remained the same after 5-min strenuous exercise and 8-min massage. This study used an objective tool to quantified muscle stiffness and showed the beneficial changes after proper warm-up. However, small sample size and short duration of the sports massage might decrease the statistical power and limit the effects on muscles. Future research should consider increasing subject number and the duration of massage intervention.

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## Modern physiotherapy: How quickly to return to sport after anterior cruciate ligament reconstruction

#### SIMKUVIENE Akvile

#### Introduction

Anterior cruciate knee ligaments are fragile knee structures.. Around 100,000 anterior cruciate ligament ruptures occur in the United States every year. 70 percent of these injuries occur in sports. Anterior cruciate ligament rupture causes a knee instability, deteriorated balance, gait disturbances, difficulties in self-care in everyday activities, especially in sport. The neuromuscular control is decreased after anterior cruciate ligament reconstruction. It causes a disruption of muscular activity coordination. These impairements effects balance: it decreases too Recovery of a knee function after an anterior cruciate ligament reconstruction is a long-term process, and a muscle weakness of an operated thigh, compared with a healthy leg, remains even after 6 months following a surgery. It is very important to choose the optimal, most effective physical therapy program for the athletes as quickly as possible to return to sport.

#### Purpose/Methods

The purpose: to apply the newest physiotherapy programmes and to evaluate the effects of different physiotherapy programmes to a knee joint function after an anterior cruciate ligament reconstruction. 1. Static balance testing using "Balance Error Scoring System". 2. Assessment of knee joint proprioception with a "Biodex Medical Systems" device. 3. Assessment of thigh muscle force by according 5-point Lovett test. 4. Mathematical Statistics.

#### Results

A static balance of both the experimental and the control group improved significantly after 3 weeks. The static balance of the experimental group improved very significantly (p <0.001) - this was twice better than in the control group. The average of a sensory difference of a knee joint angle of 60 degrees at 30 degrees per second angular speed decreased statistically significantly in experimental group. The average of a degree difference in the control group statistically significantly decreased (p = 0.006). The average of a sensory difference of a knee joint angle of 30 degrees at 30 degrees per second angular speed decreased statistically significantly (p <0.001) experimental group. The average degree difference in the control group decreased statistically significantly (p = 0.003). A strength of knee extensor muscles increased statistically significantly (p <0.004) in the experimental group. During the standard physiotherapy programme a strength of a knee extension muscle increased statistically significantly (p <0.004). A force of a knee flexor muscle in both groups also changed. The strength in the experimental group increased statistically significantly (p <0.003). The flexor muscle strength in the control group increased statistically significantly too (p <0.004) . But a force of the flexor muscle in the experimental group was significantly higher (p < 0.05) than in the control group.

#### Conclusions

1. A standard physiotherapy programme and an additional neuromuscular training together after an anterior cruciate ligament reconstruction improved a static balance (p <0.01), a knee proprioception (p <0.001), flexor and extension muscle

strength (p <0.01). 2. A standard physiotherapy programme improved a static balance (p <0.01), a knee proprioception (p <0.01), flexor and extension muscle strength (p <0.01). 3. Additional neuromuscular training provides a higher positive effect in improvement of a static balance and flexor muscle strength in comparison to a standard physiotherapy programme, and more significant trends in a knee joint proprioception and a extensor muscle strength are observed.

#### Comments

It is very important to apply the neuromuscular training after anterior cruciate ligament reconstruction to quickly restore knee function and help patients quickly return to sports activities.

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# Effects of whole body vibration on motor functions in patients with Parkinson's disease

### LIN Hsiu-Chen, HSIEH Ya-Hsiu, TSAI Chon-Haw

#### Introduction

Parkinson disease (PD) is a common neurodegenerative disorder in the elderly, causing various motor dysfunctions, including rigidity, tremor, postural instability, muscle weakness, brakykinesia and etc. Evidences showed that regular exercise would be beneficial to PD patients. Over the last decade, whole body vibration (WBV) exercise has become increasingly popular and has been reported to have beneficial effects on muscular performance, bone mineral density, postural control, functional mobility, and sensorimotor function in a variety of populations.

#### Purpose/Methods

This study aimed to investigate the immediate effects of WBV combined with dynamic exercises on the motor functions in PD patients. Seven PD patients from our hospital voluntarily participated in this study. The testing session consisted of 5-min warm-up, 10-min WBV exercise, and 5-min cool-down. The motor functions of each participant were evaluated before and after the WBV exercise, including Wartenberg pendulum test, timed sit-to-stand, simplified Berg balance score, function reach, timed up-and-go, and timed 10-meter walk and turn tests.

#### Results

Wilcoxon nonparametric tests were used to compare between pre- and post- WBV exercise, and the statistical significances were found only in the timed up-and-go (16.0+/-8.4 vs. 12.3+/-5.7 sec) and timed turn 180 degrees around a traffic corn (4.3+/-1.7 vs. 3.2+/-0.8 sec). The results indicated that one session WBV exercise with vibration frequency at 20 Hz could improve the turning agility during walking, but no significant benefits were found in the aspects of rigidity, muscle strength, postural stability, and walking velocity.

#### **Conclusions**

The results of this study showed the beneficial effects on turning agility immediately after one session of WBV exercise in the PD

patients. Literature have similar findings that vibration with higher frequency could facilitate explosive performance. With limited subject number and only one vibration frequency, this study could not show the influences of the WBV exercise on the other physical functions in PD patients. Accumulation of data from larger sample and different vibration frequency may be needed in future study.

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# The Effectiveness of Health Management on Health Promotion: Experience from a Teaching Hospital

## CHENG Ya-Chuan, HSU Tang-Ho, CHEN Yi-Ju, LI Mei-Fang, LEE Ming-Tsung, YEH Yung-Hsiang, HUANG Min-Ho

#### Introduction

Health examination is beneficial for early detection and early treatment of diseases; however, it is one of the passive health behaviors. By way of the management of health care coordinators (HCC), active health promotion is achievable. This study reports the experience from a teaching hospital about the effectiveness of health management on health promotion.

#### Purpose/Methods

A total of 809 people received full-package health examination at Executive Health Screening Center of our hospital between June 2014 and July 2015. Five hundred and nine individuals reported with hyperglycemia, hypertension, and hyperlipidemia were recruited as the research subjects. They were divided into two groups, one with 209 individuals received health examination and also members received health management, the other with 300 individuals received health examination only. This study compared the changes in health indicators between the two groups.

#### Results

The health indicators of the individuals received health examination and also members received health management were all superior to those of the individuals received health examination only. Better outcomes were observed on the changes in the indicators followed-up a year later included blood sugar (-8.4©35.0 vs.9.6©42.8, p < 0.001), TG (-60.7©165.0 vs. -14.2©121.8, p = 0.007), cholesterol (-23.0©38.9 vs. 1.3©32.5, p < 0.001), HDLC (1.6©8.8 vs. -2.1©14.6, p = 0.007), and LDLC (-17.3©34.1 vs. 4.7©28.4, p < 0.001)

#### Conclusions

It is effective to promote health status and reduce the incidence of chronic diseases by way of receiving health examination and at the same time receiving health management provided by HCCs. Through the constant management by HCC, people were able to establish healthy eating habits and routine exercises. Health concept will be constructed thus reducing the times of visiting the doctor, lowering the load of health care expenditures.

#### Comments

People who would like to actively promote their own health are suggested to choose health care institutions providing health management delivered by HCC. Health care providers are suggested to adopt the system of HCC in order to offer effective health management.

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## A Study on Physical Fitness of Hospital Employees

### CHEN Mei-Tsu, CHEN Wen-Chun, HUANG Yu-Ting, CHUNG Jui-Jung

#### Introduction

Medical professionals play an important role in health care is. Therefore, good physical fitness is more important for them. By applying fitness assessment, the employees, as well as employers, are able to realize their own health status and, furthermore, actively prevent potential threats of diseases.

#### Purpose/Methods

This transversal study aims to investigate the correlation of physical fitness for medical professionals. 1081 subjects, employees at a regional teaching hospital in Taiwan, attended the session for assessing fitness. The rate of effective feedback was 76%. The aim of this study was to investigate the differences in physical fitness between medical staff, doctors, nurses and administrative staff, and to determine the health status of hospital employees.

#### Results

The study applied Independent Samples T test, Chi-square test and ANOVA for analysis. The result of the 1081 effective data, of which the average age of the subjects is 36.8 years old, indicates that category and waist circumference is significant (p<.05). There is significant difference for waist circumference, crunches between heartbeat, and age. Furthermore, a positive correlation in age between waist circumference and crunches. The crunches, softness, waist circumference, heart rate and gender also reached statistical significance on significant (p<.05).

#### Conclusions

Safe and simple methods can be used to evaluate the physical fitness of hospital staff. In addition to providing information for the management of personal health, the evaluation can also be utilized by hospital administrators as reference for health policy.

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# Use 5S lean thinking to reduce unnecessary movement by nurse at work in a Regional Teaching hospital

### LI I-JU, CHEN Shu-Chin, WU Chou-Fen

#### Introduction

Nurse in hospital work is very busy. They are walking miles per day due to poor layout, reaching bending or unnecessary movement due to poor ergonomics, and searching for medical tools. Worksite health promotion is very important because of the change of wasting time on unnecessary activities, especial for nurse in hospital. In recent years, nurse recruitment is difficult to take off in hospital, day nurse care 8-9 patients.

#### Purpose/Methods

This study aimed to use 5S lean thinking focusing on reduce unnecessary movement by nurse at work of the ward nurses in hospital. Statistics were used to calculate while a pre and post-intervention design was used to promote how to know 5S lean and make it into action. Sampling was purposive and ward nurses were recruited for the study. The sample size is 25 and the participation rate was 100%. We used discipline squares and labeling as a visual management.

#### Results

We found that ward nurses had higher job satisfaction rate; the incidence was 62.51% to 91.89%. The ward nurses had understood to know 55 lean and make it into action rate of 11.28% to 90.13%. The strategies used to improve ward nurses in hospital eliminated steps and make it into action and awareness was successful. Overall, ward nurses working attitudes to intervention were positive.

#### Conclusions

Nurse seem generally aware of the reducing unnecessary movement by nurse at work for their importance but are happy to take part in this study, would like to be informed, expect them to make it into action themselves, in order to reduce the risk of the excessive walking and standing. The development plan is planned to be a practical tool for implementing evidence based practices to support hospital managers in promoting the dining rate of the ward nurses in hospital.

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# Investigating the Effect of Exercise Education for Adults in Taiwan

## LIU Tz-Jie, CHEN Wen-Chun, HUANG Yu-Ting, CHEN Mei-Tsu, CHUNG Jui-Jung

#### Introduction

Many studies support that exercise of moderate intensity can reduce chronic disease. Therefore, we can advocate for regularly developing community health promotion of moderate intensity exercise habits and establishing health-conscious.

#### Purpose/Methods

This longitudinal study aims to investigate the outcomes of the participation of people over 18 of age in community health care conducted. This study assembled 36 subjects living in the community in Southern Taiwan for a two-year period of constant observation. By introducing body-mass index control, waist circumference and exercise, it is believed that the subjects will receive proper treatments to prevent complication of diseases from happening.

#### Results

There were 96 session in this study. The study applied Paired Sample T test to analyzing the 36 effective data. The result indicates that weight, BMI and waist circumference is significant (p < .05). The research findings revealed that the exercise education courses were effective in improving the adult's health promotion behaviors.

#### Conclusions

The results showed that exercise education courses continuously and regularly can improve fitness of adults. The research results can be provided as reference to future promotion of exercise education courses or serve as a reference for designing weight loss program for adults and relevant studies.

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# Session P1.9: Mental health promotion of somatic patients

The Husband and Wife Interaction a fterBreast Cancer Therapy: The Analysis of the Spouses of the Female Breast Cancer Patients

### YANG Hui-Hua, CHEN ShuChen LI, HSIEH I-Ching, CHEN Chao-Jung, CHANG Li-Chen

#### Introduction

The spouses of female breast cancer patients need to deal with medical treatments and living adjustments, experience the changes of husband-wife relationship, and accompany their wives to go through the stress during treatments. However, in Taiwan, there's a limited studies focusing on the spouses' experience of how they accompany their wives and the interaction between husband and wife during the treatment process.

#### Purpose/Methods

The purpose of this study was to explore the spouses' experience of husband-wife interactions after the treatments. This study applies quantitative research, and interview 3 husbands whose wives had breast cancer. By interview, verbatim, encoding, and analysis, this research interprets the meaning of husband-wife interactions.

#### Results

The interviewees suggest the following changes in their marital relationships: 1. To avoid stress and conflicts, interviewees are more tolerant of the survivals' unstable emotions. 2. The interviewees become more active in helping their wives to rebuild new life and encourage them to join the cancer patients' support group and build new connection with others. 3. Although the interviewee's feel stressful when taking care of their wives, they gain accomplishments when their wives' feel beloved and happy.

#### Conclusions

The study finds that when the wives got breast cancer, the interaction between wives and husbands is affected. Husbands play an important role of helping and supporting their wives to reconstruct lives and reaccept self-image. The finding suggests medical teams to be aware of the spouses' demands while providing social-psychological support to the breast cancer patients. The healthcare system can set up support groups to help the spouses, and avoid emotional exhaustion and maintain the life quality between husbands and wives.

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# Life value transformation after treatments of female breast cancer patients

# CHEN Chao-Jung, HSIEH I-Ching, CHEN Shu-Chen C, YANG Hui-Hua, CHANG Li-Chen

#### Introduction

Breast cancer is the most common female cancer worldwide, and the incidence is increasing in Taiwan as well. Female breast cancer patients not only deal with medical treatments and living adjustments, but also have to experience the change of husband and wife relationship during or after the treatments. This study will focus on the experience of how female breast cancer patients mentally and socially confront their treatment, especially the transformation of their own values.

#### Purpose/Methods

This study intends to comprehend how female breast cancer patients deal with the psychological and societal modification during medical treatments and life changing as a reference for the patient group studies in the future. This study applies qualitative research, and focuses on 3 female breast cancer patients from the patient group of Chiayi Christian Hospital. By interview, verbatim, encoding, and analysis, this research explains the meaning of patients'intimate relationship after medical treatments and their journey of life changing.

#### Results

Family who accompany and care about the patient are the main support to overcome the disease and treatment. Meanwhile, the intimate husband and wife relationships, such as physical touch, verbal, and nonverbal communications, help reveal the love and comfort to the patient. After all, overcoming the threat of death will make the patient and family cherish the marriage and the relationship more. Further, it helps adjust the core value of patient's life, and advances patient's altruism by helping others.

#### **Conclusions**

Breast cancer patients may have major impact and hard times, which make them rethink the meaning of life and learn how to adjust it. With the spouses' support, more intimate relationship between husband and wife may be developed. This study suggests that it is better to view breast cancer patients' life on the basis of resilience and strength, and how patients further trigger their potential to share with and to help other breast cancer patients.

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**Association Between Disorder and Depression with Abortion Patients: A Population-based Case-control Study** in Taiwan.

#### **TSENG Yuan-Tsung**

#### Introduction

This study assessed the mental health outcomes among women after the abortions. Nevertheless, a nationwide study of the relationship between abortions and depressions has not been conducted. This study aimed to investigate the association between abortion and depression using a population-based dataset in Taiwan.

#### Purpose/Methods

Data for this case-control study were retrospectively collected from the Taiwan National Health Insurance Research Database. We identified 25,185 subjects who had a diagnosis of abortion as cases, and 75,555 subjects without abortion as controls. A conditional logistic regression was used to examine the association of depression with previously diagnosed abortion.

A Chi-squared test showed that there was a significant difference in the Generalized anxiety disorder (P<0.01), Neurotic depression(P<0.01) and Sleep disorder(P<0.01) between cases and controls. The adjusted odds ratio (OR) of these disorder for cases were 1.43 (95% [CI]: 1.34~1.52, p < 0.001),1.42 (95% [CI]: 1.27~1.58, p < 0.001) and 1.37 (95% [CI]: 1.27~1.48, p < 0.001) compared to controls.

#### Conclusions

The results further revealed that case groups demonstrated higher ORs for disorder among cases than controls. Abortion subjects were associated with a higher proportion of prior depression and sleep disorder than the controls. The data provided information about normal variations within and usual rates of mental health outcomes, and they provided a database for subsequent evaluation of individual and subgroup performance.

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Relationship between muscle weakness of upper extremities, depression and quality of life in people with stroke

#### SU YI-CHIA, CHEN MING-DE

#### Introduction

Deficits in muscle strength after stroke affect the motor function, which cause problems in performing activities of daily living (ADL), and consequently influence quality of life (QOL) and mental health. Studies have shown that about 30-40% persons with stroke have suffered from depression. This study was to investigate the correlation between the deficits in muscle strength of upper extremities (U/E) and psychosocial functions after stroke, and further to identify the specific muscle groups influencing QOL and depression.

#### Purpose/Methods

Forty persons with stroke (28 males) were recruited in this crosssectional study. Muscle strength in ten body movement of U/E was evaluated by the Hand-held dynamometer (MicroFET 2). Muscle strength deficit was determined with the following formula:[(muscle strength of paretic side)-(muscle strength of nonparetic side)]/(muscle strength of nonparetic side)\*100%. Centre for Epidemiologic Studies for Depression scale (CES-D) were used for the degree of depression, and Stroke Impact Scale (SIS) for the QOL.

#### Results

SIS has significantly moderate to high correlation with muscle strength deficits in several muscle groups (r=0.40-0.70). CED-S has significantly moderate correlation with shoulder internal rotators and elbow flexors (r=0.39-0.45). Stepwise multiple regression analysis revealed that muscle strength deficits in shoulder internal rotators were significant contributors to SIS-ADL subscale (R2=.33), participation subscale (R2=.09) and recovery subscale (R2=.15) and CES-D (R2=.18).

#### Conclusions

The study demonstrated that muscle weakness substantially impacts mood status and quality of life in persons with stroke, particularly the strength deficits in shoulder internal rotators. This study might reveal the importance of strength training in rehabilitation and health promotion program for persons with stroke. Changes of QOL and depression level before and after the strength training of U/E has to be investigated in the future research.

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# Incidence, risk, and associated factors of depression in persons with disabilities

# SHEN Szu-Ching, HUANG Kuang-Hua, TSAI Wen-Chen, KUNG Pei-Tseng, CHIU Li-Ting

#### Introduction

This study examined the incidence and risk of depression in persons with disabilities and factors that influence this risk.

#### Purpose/Methods

In a retrospective study design, data were obtained for persons with disabilities aged ≥20 years old from 2002 to 2008 in Taiwan, totaling 749,491 study subjects, from two national databases, the Ministry of the Interior's database of physically and mentally disabled persons, and the National Health Insurance Research Database. The incidence of depression in the subjects was analyzed by univariate Poisson regression, and the depression risk and associated factors were examined using the Cox proportional hazards model.

#### Results

Among the subjects with disabilities, the incidence of depression was 6.29 per 1000 person-years, with the incidences of major depression and dysthymic disorder being 1.83 and 4.39, respectively, per 1000 person-years. Factors affecting the risk of depression included type of disability, level of disability, gender, age, education level, marital status, aboriginal status, monthly salary, urbanization level of the residence area, and Charlson comorbidity index (CCI).

#### Conclusions

This retrospective analysis in Taiwan showed that the incidence of depression was 3.7 times as high in persons with disabilities as in the general population.

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# Improve the Pressure Scale of Patients in the Negative Pressure Isolation Wards

# HSU Yu-Ying, YEH Nung-Ju, WU Li-Chu, CHOU Hsueh-Chih, CHENG Jing-Shiung

#### Introduction

Patient safety and the Effects of Health Promotion Presentation has been one of issues which attracts the world's attention. When patients need to be hospitalized in the negative pressure isolation wards, what they face is not impacts and pressure resulting from the illness itself but the peculiar look from the public and the limitations of their mobility. While staying in the negative pressure isolation wards, they cannot freely go in and out the wards and have to regularly take medicine for 6-9 months. Apart from the side effects and uncomfortableness,

some negative emotions including anxiety, fear, fury, and reluctance to receive treatment, etc. Researches suggest that when the pressure exceeds a certain limitation, the effectiveness will start to decline

#### Purpose/Methods

Purpose:SAED and effective education programs are employed to improve the pressure scale of patients in the negative pressure isolation wards, lowering to below scale 2. Method:The data are collected from 1st to 30th November, 2015, totally 515 subjects included. As the patients were hospitalized in the negative pressure isolation wards, they filled in the form of SAED by request. Those whose scales were more than scale 4 would refer to other related institutions for further assistance such as social workers, psychiatrist, and counseling psychologist. The patients with scale below 3 would be offered individual health education instructions by the nurses, including health education handouts, recording files, videos and so forth. In addition, based on the patients' languages and ages, they were offered suitable health education information, available in a wide range of languages like Mandarin, Taiwanese, Hakka, English etc. to meet the patients' needs and further they can understand more about the treatment process of their illness and related health education programs and the pressure scale could be lowered to less than scale 2.

#### Results

25 out of total 515 subjects with more than scale 4 are referred to the related institutions for further help. Through providing related and individual health education programs, the rest 490 patients with the pre-evaluated scale 3 decrease to 287 with scale 1 and 203 with scale 0 respectively. Besides, the scales of 9 referrals lower to 3 and 16 referrals to 2 after treatment, achieving the goals of 98.25%.

#### Conclusions

Healthy emotion is the crucial factor to bring wisdom and efficiency into full play. Taking advantage of SAED as well as health education programs to improve the pressure scale of the patients in the negative pressure isolation wards not only alleviates anxiety and pressure but also increases interaction between the doctors, nurses and patients and further strengthens the patients' health, facilitates their earlier recovery from illness and reaches the goal of holistic health care.

#### Comments

Conclusion and Recommendation: Healthy emotion is the crucial factor to bring wisdom and efficiency into full play. Taking advantage of SAED as well as health education programs to improve the pressure scale of the patients in the negative pressure isolation wards not only alleviates anxiety and pressure but also increases interaction between the doctors, nurses and patients and further strengthens the patients' health, facilitates their earlier recovery from illness and reaches the goal of holistic health care.

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# Session P1.10: Incorporating health promotion in psychiatric care

Incorporating Health Promotion into an Acute Psychiatric Unit at the VA New York Harbor Healthcare System 17 North

#### **KAPLAN Linda, BATTINELLI Danielle**

#### Introduction

Veterans admitted to the 17 North unit attend Nursing-led psychoeducational groups that discuss topics ranging from sleep hygiene, diet, annual vaccinations such as the flu and pneumococcal and other topics. Staff completes the clinical reminders for primary care for the patients. The importance of follow-up up once discharge is discussed.

#### Purpose/Methods

The Veterans Affairs New York Harbor Healthcare System 17 North Unit has been actively working toward improving the overall health of our Veteran population in the mental health arena and educating them on the need to follow-up for preventative healthcare once discharged. The VA offers seamless care from the inpatient to outpatient setting and a continuum of care for our "lifelong customers". It is imperative that our patients maintain optimum health, seek preventative healthcare, follow-up for newly diagnoses and chronic healthcare issues once discharge.

#### Results

The evidence-based research supports the need for preventative care and health promotion for patients with co-occurring illnesses. According to studies done many patients with mental illness have a co-occurring medical condition, die 25 years earlier (Druss & Walk, 2011) (Carney & Jones 2006).

#### **Conclusions**

Nursing Staff on an acute psychiatric unit are in an ideal position to provide health promotion activities and education to the patients on the unit Future implications for mental health nurses are to expand the health promotion program to other settings and to do research.

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Applying Data Mining to Explore
Violent Accidents of the Psychiatric
Wards-The Case of a Psychiatric
Hospital in Taiwan

# FANG SZU-TING, SHEN SHU-HUA, CHENG CHING-MING

#### Introduction

Health and safety culture is important for each hospital. The purpose of the study was to analyze the cause of violent accident in psychiatric wards and then to reduce the accident frequency, and to decrease the physical and mental adverse effect. Moreover, we hope this research may also improve the employee morale and maintenance of hospital safety and health culture.

#### Purpose/Methods

This research used the database of violent accidents in a psychiatry ward of a regional psychiatric Hospital in Taiwan. The analysis resources were abnormal events from January, 2014 to September, 2015 and the research objects were 702 violent accidents. Furthermore, we analyzed violent accidents by using Attribute oriented-induction to know categories of variables and the relationship. Simultaneously, we inputted the database and compile d statistics by SPSS 21.0.

#### Results

The result showed the average age of violence patients is 38.8±2.4. It also revealed male are more than female and single are more than married. As the diagnosis aspect, most of the patients were schizophrenia and the second were bipolar disorder. It showed the variables are as following: (1) the individual (such history of violence and diagnosis) and patients were 45.3%, (2) accident location and timing were 27.6%, (3) level of violence was 13.8%, and (4) other variables were 13.2%.

#### **Conclusions**

The result showed the individual variable and accident location & timing were important factors of violent accidents. Therefore, we suggested that we have to strengthen (1) staff's quality (such as ability of evaluation and handling of violent accidents), (2) physical facilities (such as appropriate physical restraint tools), and (3) medical administration (such as perfect SOP, well team communication, friendly medical environment...) while violent accidents occur. Furthermore, we may reduce the violent accidents and ensure patients' and staffs' security.

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## Suicide Prevention: The Function of Security Protection Device of the Flyover Acrossing Hospital Districts

#### LIN Tsung Mao, CHANG Li Chen

#### Introduction

In order to improve the medical care environment and quality for people in southern Taiwan, Chiayi Christian Hospital, established in 1962, completed the new outpatient building and the flyover in 2010. The flyover allows patients and staff to pass safely through different hospital districts. However, there are some suicide risks of people who may jump from the flyover.

Therefore, the hospital set up the security device to prevent people from falling from the flyover and suicide.

#### Purpose/Methods

The fences that prevent people from suicide were set up in February 2012. The study aims to analyze the effect of equipment before and after the installation that prevents people falling from the flyover. Data collected from March 2010 to December 2015 to record the process and results of dealing with patients falling from the flyover. Based on the records before and after using the security system, we studied the differences of handling process about preventing people suicide from the flyover.

#### Results

1.After the anti- hop systems were set up, one patient who tried to climb the fence to jump off the flyover touched the anti-hop systems and started alarm, and the attention of passers as well as hospital security guards are raised. The site of the incident was found correctly and immediately went to rescue. 2.Some passers suddenly felt unwell when going through the flyover, and others used this system to inform emergency station to help the passers to hospital.

#### **Conclusions**

According to the findings, the security systems not only prevent patients falling from the flyover, but have a notification function of abnormal events. It is very important that the security systems provided real-time monitoring with patient's security and early warning to prevent the patient's suicide. Accordingly, we recommend that the security devices may also be used in psychiatric wards or the hospital top floor to improve the safety of patients in the medical environment.

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# The Effect of the Innovative Nursing Care Modality on Enhancing the Satisfaction of Psychiatry Inpatients

### SHEN Shu-Hua, CHENG Ching-Ming

#### Introduction

The study aims to investigate the satisfaction enhancement of psychiatry inpatients, who are tended with the innovative nursing care modality (INCM) bedside handover and self-introduction of nurses.

#### Purpose/Methods

The study is based on a purposive sampling method. The participants are sixty psychiatry inpatients in a southern psychiatric center in Taiwan. The inclusion criteria are: 1. The length of stay is over two weeks. 2. The inpatients are able to understand the questions and respond accordingly. 3. The inpatients are able to complete the questionnaires and willing to take part in this study. The data is collected both prior and one month posterior to the implementation of the INCM, so that the effects of it can be explored. The assessment indicators of the study are: 1. The satisfaction of nursing care 2. The time for problem solving 3. The description of qualitative feelings.

#### Poculto

After the INCM is put into practice, the satisfaction of nursing care rises from previous 80% to 93%. The problem solving time reduces from former 30 minutes to 15 minutes. In terms of the description of qualitative feelings, many inpatients claim that their problems are valued and resolved, and that they feel warm after the nursing care, and that they are able to get diverse information. To sum up, after the implementation of the INCM, the satisfaction of nursing care is enhanced. The time for problem solving is shortened. The general feedback from the nursing care is positive.

#### Conclusions

This study makes use of the innovative nursing care modality, where the nursing care procedure is outlined based on the patients' needs. The INCM revolutionizes the traditional clinical nursing care modality and enhances the satisfaction of psychiatric inpatients. Therefore, it is recommended that nursing staff strengthen their ability in innovative nursing care so that a win-win situation can be achieved between patients and clinical nursing care.

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# The Relate Factor of Higher Discharge Rate in Daycare Service

## LEE Mei-Hung, CHEN Shue-Fen, SHEN Shu-Hua

#### Introduction

Patient with psychiatric illness was influenced by the psychotic symptoms, resulting in life function degradation, inappropriate social interaction, social adjustment difficulties and other issues. Day care for psychiatric patients can be effective in returning the patient to a normal life in the community through therapeutic team working closely together. Patient continued to participation in rehabilitation therapy to reduce disability.

#### Purpose/Methods

The purpose of this study was to understand the relate factor of high discharge rate in daycare service. 57 daycare patients were recruited from January to October 2015 in southern of Taiwan. Outcome measurements were collected by self-design questionnaire of discharge factors included symptoms deterioration, lack of disease awareness, physical illness, and work outside the hospital, unable to attend, family issue and turn to other hospital. Individual interview used to understand the main reason for discharge. The chi-square test and descriptive statistics was applied to analysis in this study.

#### Results

The result revealed that factors of high discharge included 20 patient thought they do not need to receive functional training, followed was 11 patient received occupational training outside and symptom deterioration, 10 has physical problem, 4 patients has achieved the treatment target. Patients and their families reasons: (1) 75% was lack of the illness knowledge, 50% had poor

drug compliance (2) 20% family have to take care at home. (3) 5% felt their condition has improved.

#### Conclusions

By investigate the cause and propose specific improvement measures: (1) to set treatment goals detail before admitted to day care. (2) To invite patients to participate in team meetings, to strengthen awareness of the disease. (3) Regular monthly discussions with patients reach treatment goals performing status.

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## Using the Strengths Perspective on the Effectiveness of Discharge Planning in a Psychiatric Rehabilitation Ward

# TSENG Yu-Kuei, CHIU Hsiao-Tan, FANG Szu-Ting, SHEN Shu-Hua

#### Introduction

Previous studies indicated that psychiatric patient often faced with many difficulties after returned to the community, recurrent relapse and re-admission would occurred due to maladjustment in community. A comprehensive discharge planning can enhance patient self function, improve quality of life and reduce readmission rates. In this study, the strengths perspective of innovative services to create a community-like autonomy mode, in order to promote discharge planning services, enhancing patient satisfaction and quality of life and reduce readmission rates.

#### Purpose/Methods

In this cohort study, 80 psychiatric patients were recruited from a psychiatric center in southern Taiwan. To apply the strengths perspective theory mode, constructed a community-like self-help group, personal self-learning of problem solving and self-government family groups. The role of psychiatric nurse was an instructor to help operating in group. The group activity satisfaction questionnaire and WHOQOL-BREF Taiwan Version were used for data collecting; these rating scales have good reliability and validity. SPSS 17.0 software package Chinese version was applied for data analysis and statistics.

#### Results

The results revealed that the average age of patients were 45 years old, male to female ratio of 50% each, in group activity satisfaction, the degree of understanding group purpose increased from 18% to 32%, 58% thought that is helpful toward problem solving, 28% felt very helpful, 91% patients look forward to participating in groups again, 54% are very satisfied toward nurses accompany with. Study found that physical and psychological facets highest satisfaction in the quality of life, the ability to daily life, sleep, satisfied with their relationships meaningful reached the level of satisfaction, the other psychological and physical, social, environment and quality of life dimensions were significantly related (p≤ .000)

#### Conclusions

Strengths perspective of innovative services to create a community-like self-help autonomy group mode, patient could understand the purpose and manner of group, promote self-learning problem solving and self-management capabilities, willingness to participate self-government group again. Patient felt satisfaction in the quality of life, unlike traditional care, group participation can significantly improve its negative disturbance, and helps patient achieve discharge planning then enhance autonomy and reduce re-hospitalization rate.

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Factor analysis of the occupational therapy attendance rate among the patients with schizophrenia during hospitalization in the acute psychiatric ward of a medical center in Taiwan

### CHEN Yin-Hsing, HU Li-Yu, CHENG Jin-Shiung, CHOW Phillip

#### Introduction

Background: Occupational therapy provides treatment for patients with schizophrenia in acute psychiatric ward to evaluate the patient's functional status. Utilizing goal-directed activities, occupational therapists help patients to get alleviation in interference from psychiatric symptoms and give suggestions to psychiatrists for preparing discharge planning. Thus, we assume that occupational therapy attendance rate in acute psychiatric ward is an important indicator in clinical service.

#### Purpose/Methods

By retrospective medical record review, we collected data of schizophrenic patients' occupational therapy (OT) attendance rate from May 2015 in the acute psychiatric ward of a medical center. We compared the patients' age, gender, current GAF, times of hospitalization, and the duration between the date of admission and the occupational therapy start date [OT start] and tried to find their correlations with the attendance rate.

#### Results

Result: We conducted Spearman's rank correlations , there was a significant correlation between the attendance rate and [OT start] ( rs = -.497, P = .006). [OT start] also have significant correlation with current GAF, times of hospitalization, and gender ( rs = -.598, P = .001; rs = -.444, P = .016; biserial correlation = -.415, P = .025).

#### Conclusions

Suggestion: Typically, GAF is an effective tool for assessing the functional status of schizophrenia patients. However, this present study revealed that the OT starting time [OT start] has more correlation on patients' attendance rate than the GAF. We deduce that the multi-dimensional assessment of occupational

therapy could be more predictive to the treatment effect of schizophrenic patients in acute psychiatric ward.

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# The effectiveness of influenza vaccination implementation in a psychiatric center

#### LIU Yu- Ping, SHEN Shu-hua

#### Introduction

The psychiatric hospital is different from general hospitals, therefore how to prevent respiratory infections (influenza); unexplained fever is a very important issue. Early flu prevention strategy could ensure patient and hospital personnel to obtain the appropriate and timely medical service during peak period of influenza. It can improve the quality of health care.

#### Purpose/Methods

Management objectives and implementation strategies since 2013 to 2014 were: 1.To start health monitoring system and especially outpatient department for influenza. 2. To blocking clusters incident that patients in flu influenza peak of the outbreak. According to vaccination process execution.3. Strengthen the staff, patients, community residents against influenza the prevention and treatment knowlege, to complete the education and training of influenza vaccination and field exercises; provides a perfect influenza pandemic contingency plans and the response of standard operating procedures.

#### Results

Totally held 4 sessions training course to the hospital staff and the public health for respiratory infections education prevention in Sept. –Dec. on 2013.Completed twice of outpatient, emergency vaccination drill and moving lines cum wear off the isolated clothing. To revise the procedure of emergency response plan. Application influenza epidemic peak of medical care for influenza patient's award program of the Department of Disease Control, Ministry of Health and Welfare in 2013, 2014, won the bonus 80,000 NT dollars.

#### Conclusions

It could prevent the spread of the flu epidemic through facilities, equipment and standard of the procedure, to establish the mechanisms for the prevention of influenza preparedness, follow the Department of Disease Control, Ministry of Health and Welfare prevention policy and the hospital infection control processes, internalized into conventional coping mechanisms to implement the precautionary measures.

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## Cervical Cancer Screening among Hospitalized Chronic Psychotic Patients

### LIN Yao-Yu, CHENG Hsiu-Chu, CHEN Yu-Li, YANG Chi-Hua, CHEN Zhi-Han, HUANG Yao-Hui

#### Introduction

The care for chronic psychiatric inpatients includes psychological, social, as well as physical aspects of health. The early detection and treatment of cervical cancer has been one of the top priorities in public health policy in Taiwan. Yet not much has been studied on long-stay inpatients in psychiatric hospitals.

#### Purpose/Methods

Previous research have shown that the mortality of cervical cancer can be significantly reduced through screening programs utilizing Pap smear. But it still remains unknown among psychotic patients. The aim of this study is to determine the prevalence of abnormal Pap smear test results among hospitalized psychiatric patients. Data of 514 female patients in chronic wards of a psychiatric hospital located in central Taiwan, who were eligible for Pap smear screening check during 2000 and 2014, were retrieved for this study.

#### Results

Among study subjects, 509 (99%) were diagnosed as Schizophrenia; 15 (1%) as Depression. 242 (47.1%) had taken Pap smear check, among whom 49 (20.2%) were tested abnormal in the primary screening. All 49 patients were then referred for secondary screening, yet there were no case of cervical cancer confirmed.

#### Conclusions

The prevalence of cervical cancer in Taiwan is 10.5 per100,000 population. The prevalence of psychotic patients, as shown in this study and others, appears lower than that of general female population. One of the plausible explanation for lower prevalence might be the low attendance of Pap smear screening. The ideal uptake rate is 70%, which is much higher than what was found in this study.

#### **Comments**

In terms of health management for psychotic inpatients in chronic wards, (1) much more emphasis on patient/family education should be stressed in order to promote the early screening, identification, and treatment of cervical cancer; and (2) further studies on factors influencing the willingness of female psychotic patients to take screening tests are also recommended.

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# Mindfulness-based Cognitive Therapy for Patients with Remitted Depression: An Outcome Study

### LIN Yi-Chun, LIN Chun-Chun, HUANG Kuo-Yang, HUANG Hui-Ting, CHUO Ying Hsiang, HSU Cheng-Dien

#### Introduction

Depressive disorder has been proved to be chronic and recurrent. Recent researches proposed the importance of preventing depressive patients from recurrence rather than diminishing the symptoms. Previous literatures revealed the efficacy of mindfulness-based cognitive therapy (MBCT) on preventing relapse of depressive disorder. Our present study aimed to explore the effectiveness of MBCT on mood and cognitive components of patients with remitted depression and their life adjustment after treatment.

#### Purpose/Methods

6 patients with remitted depression from outpatient psychiatric clinics in a general hospital were recruited and received 8 weeks MBCT group intervention. Before and after treatment and 20 weeks after intervention, all participants filled out self-reported questionnaires designed to evaluate their mood and cognitive components and changes of metacognitive self-awareness.

#### Results

Two of 6 patients completed 8 weeks MBCT intervention and three assessments. Patient A's depression, anxiety, somatic symptoms and negative thinking were diminished while metacognitive self-awareness increased in all assessments. Our second assessment showed that patient B's depression and anxiety were increased under the impact of most recent life stressor, however, somatic symptoms and negative thinking were decreased with the improvement of metacognitive self-awareness. The third assessment on patient B revealed positive change over all components and no signs of recurrence.

#### Conclusions

Stressor might influence the patient's mood, but the patient would be resilient under MBCT intervention. Through the continuous improvement of somatic symptoms, negative thinking and metacognitive self-awareness, MBCT could prevent patient from recurrent depression.

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The Project of Exercise Training to Improving Fall incident of Residents in Psychiatric Nursing Home

SHU-YUH Pi, SHU-HUA shen

#### Introduction

Psychiatric Nursing Home high fall rates. To prevent residents of complications due to a fall hazard fracture, accidental injury, but also due to fear of falling so let the elderly, may feel fear and reduce normal activities, thus accelerating the degradation of the physical and mental function. Sports training to enhance the ability of residents of lower extremity muscle strength and balance and reduce falls and injury Resident

#### Purpose/Methods

The purpose of this project was to improving residents' fall accident through exercise training, enhancing residents' lower extremity muscle strength and balance. To measure the muscle strength before and after, included 1. Standing on one foot sustainability ≧10 second, 2. 150 meters round-trip time. The result of pre-test measurement showed that 65% of residents had lower limb weakness, poor balance. This excessive training programs were including balance training, resistance exercise, flexibility exercise and aerobic exercise three times a week.

#### Results

The 14 fall incidents occurred in 2014, and 7 incidents in 2015, it obvious has decreased , and reduce the severity of injuries to no damage or only minor damage. Standing on one foot to enhance the sustainability ≧10 seconds increased to 94.3%, 150 round-trip time has reduced, the achieve rate was 88.8%.

#### Conclusions

The project effectively reduce the rate of falls and injury resident after a fall, and increases muscle endurance inhabitants, to prevent and delay the occurrence of disability elderly, and provide opportunities for residents in the aging process attainable

#### Comments

Recommends that institutions plan to provide a safe, health promotion, effective, holistic, possessed with residents as the center of care coordination, promote residents care for their own health and ability to control, to prevent and delay the occurrence of disability in elderly and provide residents in the aging process attainable maximum health opportunities. Key ward: Psychiatric Nursing Home, Exercise Training, Fall

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Exploring the Related Factors Among Obesity, Health Status and Health Behavior in Psychiatric Rehabilitation Ward.

# TSAI Hui-Ling, SHEN Shu-Hua, CHENG Ching-Ming

#### Introduction

Obesity is a major factor caused chronic diseases and cancer, and at least six diseases associated with obesity of the top ten causes of death in Taiwan. The length of days of psychiatric patient in hospital was longer than normal illness. Research highlighted

that there are 20% to 60% chronic psychiatric patients are obese, therefore, to promote effective weight loss strategy, through healthy lifestyle education and behavior to against obesity, could keep stable condition, and achieve physical and psychological balance.

#### Purpose/Methods

The purpose of this study was to explore the related factors among obesity ,health status and health behavior in psychiatric rehabilitation ward. Subjects were 286 patients with schizophrenia diagnosis in rehabilitation ward, data collecting by patient health records, and SPSS 17.0 was applied for data analysis in this study.

#### Results

The average age was 45.5, 25.9%body mass index (BMI) was over 24 , 26.6% BMI over 27. 30% patient had the diagnosis with diabetes, hypertension and hyperlipidemia. This research revealed that there was positive correlation between BMI and Glycated hemoglobin. There were statistical significant difference among obesity and age , hyperlipidemia , smoker ( $\chi$ 2 = 19.423, P <0.013) and received smoking cessation service( $\chi$ 2 = 10.73, P <0.03).

#### **Conclusions**

In this study, 52.5% patients' BMI falls within the overweight range. Overweight and obese individuals are at an increased risk of chronic diseases, thus, through effective strategies, and create a supportive environment, develop good health form, reducing obesity rates it is very important.

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## Restoring Human Dignity-Continuation of Mental Rehabilitation Services in a General Hospital

#### **FANG Chun-Kai**

#### Introduction

It's very difficult to find jobs for schizophrenic patients and some bipolar patients. Many psychotic patients refused to try receiving mental rehabilitation service because they felt difficult and wondered how to do steps by steps. There were very few psychiatric hospitals and general hospitals to provide the systematic mental rehabilitation services for psychotic patients. In past 16 years, MacKay Memorial Hospital tried to construct a total systematic services and hoped to restore patients' human dignity.

#### **Purpose/Methods**

Since 1999, MacKay Memorial Hospital established the Day Care Center for psychotic patients. Since 2004, we established the sheltered workshop- Joy Café. And we began the career counselors' service for finding jobs in communities. From 2011 to 2013, we wanted to integrate all three parts as a continuation of mental rehabilitation service. We designed some quality indexes to make sure our quality of care and to keep their dignity.

#### Results

In the Day Care Center, the recovery rate to community with good enough function after discharge was 49.1% from 2011 to 2013. In the sheltered workshop-Joy Café, the average of salary was from NT\$ 5,000 to 11,000. In the career counselor' service for finding jobs, there were 65 psychotic patients to find normal jobs in communities.

#### Conclusions

Dignity for psychotic patients is not only psychotic symptoms free but also recovery of social function. MacKay Memorial Hospital became the only one general hospital to provide the continuing mental rehabilitation services in Taiwan. The true value of psychiatric services is restoring human dignity.

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# Improving The Social Adaption Of Psychiatric Patients In The Community Using Multi-Dimensional Community Rehabilitation Model

### LU Chia-Chih, WU Wei-Hsin, WANG Wen-Yen

#### Introduction

Psychiatric disorders lead to multiple functional degenerates. These include poor awareness of disease prevention, dependence on family for daily living, decreased work ability, and stereotypical view from the society. These factors pose greater difficulty for the patients to return to society. However, after receiving community rehabilitation to improve their functioning, psychiatric patients may change society's view of them and ultimately return to society.

#### Purpose/Methods

The multi-dimensional community rehabilitation model was employed to help improve patient's daily living function in the community, increase the family's willingness to participate, and enhance the public's confidence to interact with the patients. In addition to the existing individualized program and vocational training, this study incorporated health screen and education to increase the patient's health literacy and ability for independent living, thereby reducing family burden. Progressive community integration was also adopted to strengthen the public's confidence in interacting with these patients.

#### Results

The patients' daily living function improved. Specifically, concepts regarding disease prevention advanced, and the voluntary follow-up rate for abnormal screening results raised from 9.09% to 60%. Regarding independent living, family reported ≧ 90% satisfaction with initiation in daily living, symptom stability, and familial interaction. Overall satisfaction rose from 79% to 95%. The patients' work-related functioning improved, 63.6% of the patients remained employed for ≧ year.

Public confidence in patient interaction increased, 99% of the people were willing to participate again.

#### **Conclusions**

The recovery and returning to the society of psychiatric patients are largely impacted by the level of patient empowerment, the patient's ability to make decision, family support and involvement, and social acceptance and understanding. As indicated by the results, participation in community rehabilitation effectively improved the patients' health literacy, ability for independent living, vocational function, family support, and public acceptance.

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The effects of Phoenix Cup Games, Taiwan's national exercise competition, on physical fitness of people with severe mental illness.

#### TSENG Yen-Wen, HSIAO Han-Yi

#### Introduction

Clinically, we found that due to mental illness or the psychiatric drugs, many people with mental disorders may be hypoactive and the BMI is too high, which results in obesity and worsening physiological functions. To show the rehabilitation effects, "Phoenix Cup Games" has been developed as a national exercise competition for people with severe mental illness in Taiwan since 1991, and so far it has been maintained for 24 years. It includes all kinds of ball games, interest competitions and relay race.

#### Purpose/Methods

The evidence-based studies have confirmed that the proper physical training can improve the patients' physiological, psychological and social functions. The competition training of the first six weeks was designed 1.5 hours a day, five days a week. Added to this, the physical training of the next six weeks was designed 1 hour a day, three days a week. The physical fitness, including "flexibility", "Muscular endurance" and "Cardiorespiratory endurance", is measured before the training program, and after the "Phoenix Cup Games".

#### Results

There are 18 participants (9 males and 9 females) in this program, and the diagnosis of them were 61% schizophrenia (n=11), 33% mood disorder (n=6) and 6% adjustment disorder (n=1). The quantitative results were statistically analyzed by means of the Paired-Samples T-test. Later, the levels were significantly up-regulated in muscular endurance (M=+3.06, SD=3.78, p=0.003), flexibility (M=+5.11, SD=6.86, p=0.006), but not in cardiorespiratory endurance (M=+1.228, SD=6.15, p=0.409).

#### **Conclusions**

Based on the study results, this program could be effective for individuals with mental illness to improve their fitness. Specifically, the muscular endurance and flexibility were significantly improved in these participants. However, only a few

samples, no control groups and lack of long-term follow-up were limitations of this study, and few outcomes of measurement were also limitations. A number of parameters related to this program which we are concerned about, such as weight, emotion and social skills will be addressed in the future study.

#### Comments

The "Phoenix Cup Games" exercise training program was for the benefit of the participants as a whole. Both participants and therapists indicated that through "Phoenix Cup Games", individuals with mental illness would have high motivation to participate in the exercise training program, and enhanced mood states and social communications. It remains a valuable direction for the future work.

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Psychiatric Mental Health Nurse
Applying Community Partnerships to
Assist Smoking Cessation of
Psychiatric Patient in Home Care

# YANG Shiou-Jin, WANG Hsueh-Yin, TUNG Tzu-Han, SHEN Shu-Hua

#### Introduction

The drug self-management and drug adherence of psychiatric outpatient was poor , the purpose of this study was to explore psychiatric mental health nurse applying community partnerships to help the psychiatric patient at home, to participate in the second generation of smoking cessation outpatient treatment process, to enhance the effectiveness of treatment of patients with smoking cessation.

#### Purpose/Methods

20 community smokers were recruited in from January to December 2014 in southern of Taiwan. The psychiatric mental health nurse applied community and family support interaction and cooperation, establish partnerships and alliances behavior (Medical Alliances), to assist patient continued to accept second-generation smoking cessation outpatient treatment ,and overcome the side effects of smoking cessation medication , constructed self-management ability thereby improving their nicotine addiction degree, breath carbon monoxide concentration and the amount of smoke daily.

#### Results

The nicotine addiction degree of 22 patients has decreased from 7.27 points to 6.44 points in the smoking cessation clinic on the first day and the second six months, breath carbon monoxide concentration from 5.95 down to 2.47, daily cigarette consumption is also reduced by the average 20 to 13, overall results show that the use of community psychiatric mental health nurse partnerships and alliances behavior can improve the effectiveness of community mental ill of quitting.

#### Conclusions

Applying community partnerships could provide an appropriate, individual, holistic care and health promotion activities, help to assist in the construction of their mental illness self-management skills, work together to overcome cravings, withdrawal symptoms and smoking cessation drug side effects, so as to continue to accept the cessation outpatient and medication to enhance the effectiveness of smoking cessation, encourage more mental health nurses, the use of this experience for the benefit of the mentally ill more smoking.

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# Session P1.11: Health promotion among refugees, migrants and minorities

Preliminary Study of Quality of Life on Migrant Home Helpers in Taiwan

# CHEN Yu-Ling, CHANG Hong-Jer, WANG Wen-Yen

#### Introduction

The population is aging in Taiwan. Aging population and its rapid growth have driven up the needs for long-term care. To meet the increasing demand for work force, Taiwan has imported migrant home helpers in 1996. Currently, they have reached more than 210 thousands, making up more than 16% of care forces. The majority of those workers are from Indonesia. Few studies have focused on their job stress, social support, and quality of life in Taiwan.

#### Purpose/Methods

The research adopted cross-sectional research design. Data were collected from a snowball sampling of Indonesian migrant home helpers from Taipei metropolitan, using a structured questionnaire contain demographics data and WHO Quality of Life-BREF Instruments (WHOQOL-BREF). The survey was conducted from April 16, 2014 until June 11, 2014. One hundred seventy five questionnaires were valid out of 185, SPSS for Windows 22.0 was used for data analysis. Independent sample t-test, pearson product-moment correlation coefficient were used for statistical analyses.

#### Results

The majority of migrant home helpers were 30-34 years (32.0%), their education level was under junior high school(57.8%), 47.9% of migrant home helpers said they had days off monthly, while the majority did not. Average quality of life score had 12.12 to 13.43, the highest score item is "How much do you need any medical treatment to function in your daily life" (3.95±1.01) in four domain.

#### Conclusions

In this study, we assess the relationship was significant of quality of life among migrant home helpers include days off monthly,

sleeping time, education level and frequent contact with friend or family weekly. In order to improve their quality of life, adequate life and working condition were need. The teams can consider how to assist migrant home helpers to reduce the level of quality of life through the reinforcement of migrant home helpers improve their quality of life.

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# Import of foreign care workers supporting the effectiveness of cross-cultural education and training

### CHENG Jung-Feng, WU Chia-Ju, HSU Chi-Chen, CHUANG Shu-Ting, CHIEN Sou-Hsin

#### Introduction

Elderly aging society popularity Taiwanese fertility decline, gradually highlight elderly care issues, nowadays, nursing home gradually extended, foreign care workers have injected here. Our hospital nursing home was founded in January, 2014, it's the first time to import foreign workers, because of different languages, cultural backgrounds, with uprooted work so foreign care workers in the study particularly difficult.

#### Purpose/Methods

Through education and training support, cross-cultural education to enhance the effectiveness of foreign care-workers. In 2013.10 until the election of Vietnamese workers arrived to three months before the first Taiwanese language learning technology and hospital care. One week after reporting for duty, education and training, consider language skills, providing instruction to enhance learning effectiveness translation. To allow foreign workers to adapt their homes, through orientation programs, presentations and participation in hospital culture, provide exclusive transportation vehicles and assisted living, reduce livelihood issues affecting learning, emotional; the soul level, arrange volunteers as parents are held regularly dinner discussion, let them feel like home

#### Results

We expect by a series of health, spiritual support and enhance the effectiveness of learning foreign care workers. We held four times educational trainings in 2014, the 45 members to participate in assessment value .the results of valuation information: Test scores up by an average of 91.3 points, afterschool learning satisfaction reached 99.7%, the process of learning and adaptation of foreign care workers Jieke stay on.

#### **Conclusions**

After a series of supporting cross-cultural education and training, so that foreign caregivers can really work effectively to enhance learning, their satisfaction, up 99.7 percent. And there are significant skills in the care of the effectiveness of a home-like atmosphere by creating, for foreign care workers can help increase their ability to adapt.

#### Comments

The lack of cross-cultural support for more training places are still Chinese writing instructors based, future needs can be further enhanced instant translation, or in charts and word cards, so care workers in learning more results

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An Evaluation on the use of Dual Language Instruction sheets to Improve Indonesian's Caregivers' understanding of Medicines

## YANG SHIN-FANG, HUANG SHU-PING, SHEN CHIA-LEN, YANG YA-TING, LU LI-HUA, TSAI YI-FAN

#### Introduction

Patients who required long term ventilator were situated in respiratory therapy department. Indonesian caregivers are one of the main caregivers for these patients due to the long term commitment. However, language and communication barriers for these Indonesian caregivers had resulted in their inability to understand accurate care service. Thus, affected the quality of service. From September 2014 to March 2015, 420 quality checks were conducted to assess the ability of these caregivers. Nonetheless, only 60.71% Indonesian caregivers passed the test on identification of various medicines. This raised concern over safety of patients' medicine consumption. Hence, an action needed to be taken immediately to improve identification ability of Indonesian caregivers.

#### Purpose/Methods

Medicines in respiratory therapy room were categorized and labelled in both Mandarin and Bahasa. The label sheets on the medicine also indicate the functions, side effects and things to take note. At the same time, pictures were used to provide visual assistance on the frequency of medicine consumption. Through the means of dual languages label sheets, nurses will explain the instructions to Indonesian caregivers when handing over the medicines. This provides caregivers with a more accurate understanding of the medicine. Caregivers were also educated on methods to identify side effects of patients after medicine intake. Thus, they will be able to inform the medical staffs for any abnormality.

#### Results

84 Indonesian caregivers were assessed on their knowledge on individual functions and side effects of medicine between April to October 2015. Out of 455 assessments, 433 received a pass. This reflects a passing rate of 95.16%

#### **Conclusions**

Through the use of dual languages of Mandarin and Bahasa instructions and label sheets, it allows Indonesian caregivers to have a better understanding on the functions, side effects and things to take note of the medicine. Therefore, they will be able

to provide feedback on patients' reactions after medicine consumption. Hence, improve safety of patients' medicine consumption and shall be promoted.

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# Using Multi-language Teaching Tools to Enhance Medication Safety

### HSU SU-HAN, HUANG WAN-LING, CHEN PEI-CHUN, LEI TSAI-HSUAN, CHANG MENG-LING, TSAI YI-FAN

#### Introduction

2015, there are over 12.22% elderlies (over 65 years old) in Taiwan and the number of their caregivers are arising every day. According to the Ministry of Labor (Taiwan, R.O.C.) 2014, caregivers were mainly from Indonesia, Vietnam, Philippine, and Thailand. Surprisingly, 17.99% of them were suffered from language barriers. In Taiwan, medical professionals can't speak the languages the caregivers use. We should guarantee that caregivers understand the crucial part they need to know about elderlies' medicine.

#### Purpose/Methods

We designed 3 different multi-language teaching tools from handouts, posters to stickers. Languages included English, Japanese, Korean, Indonesian, and Vietnamese. Medical professionals would use the tools to educate the caregivers in local hospital. These teaching tools were been used from January 2015. We interviewed 20 foreign caregivers for the experience of using our multi-language teaching tools during October 2015. The highest score (satisfied) was 10 and the lowest (disappointed) was 1.

#### Results

Analysis showed that the average scores of "the helping level of the tools" was 8.8; "how much do you learn about medicine administration from this tool?" was 8.95; "total satisfactions" was 9; "total satisfaction of using stickers" was 9.2.

#### Conclusions

Utilizing multi-language teaching handouts, posters and stickers to promote the non-mandarin speakers' ability of taking medicines precisely not only raise the patients' safety and convenience but save the time of conducting service from the health professionals. In conclusion, our data suggest that multi-language teaching tools in Taiwan local hospital was very helpful. Other languages, including Thai, tools under way will help more caregivers. As a result, we highly recommend each health providers to apply these tools in their professional areas.

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# Implementation of treating chronic hepatitis C in a correcting institute by a hospital-backup clinic

#### **LIN Lian Feng**

#### Introduction

In the correcting institute, chronic HCV infection is more endemic due to previous intravenous drug use and causes major mobidity/motality due to lack of budget and health care system for the incarcerated patient. In Taiwan, the health insurance reimbursed the dual therapy of chronic HCV in the correcting institute since Jan,2013. Therefore, we have this chance to treat the HCV infected prisoners by means of a hospital-backup clinic in a correcting institute.

#### Purpose/Methods

Purpose: To investigate the feasibility and safety of a hospital-backup clinic to treat HCV-infected prisoners with pegylated interon dual therapy in a correcting institute. Methods: A general clinic was established during week days in the correcting institute and the HCV infected prisoners were cared in a special hepatology clinic on Wednesday but EPO and transfusion was not offered in the clinics. The administration of medication, blood examination could be easy to carry out as schedule in the institute.

#### Results

105 voluntary male prisoners received dual therapy for chronic HCV . Among the 105 HCV patients, 7 patients (6.6%) withdrawed due to 2 flu-like side effects, 2 early releases, 1 insomnia, 1 hyperthyroidism, 1 flared psoriasis, the HCV eradication rate achieved 91% . Interestingly, 50 % patients had exacerbation of skin itching or worsening skin disorder during therapy. All of the side effect could cared in the clinic, there were none severe adverse effects and no related mortality development.

#### Conclusions

The model of hospital back-up ambulatory general physican and special hepatology clinics to execute the pegylated interferon combined with ribavirin therapy of chronic HCV infection in a correcting institute was feasible and achieved favorable viral respone rate.

#### Comments

This prospective observation study is the first study to execute the therapy of HCV in correcting institute and the present data indicate the high eradicate rate . The good results may be due to the younger age and good adherence in the incarcerated patients. The side effects from therapy could be managed in the general clinics or special clinics. This model could be extended to all the correcting institutes to eradicate HCV as early as possible.

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# Session P1.12: Self-help friendly hospitals

Health promoting hospitals meet self-help friendly hospitals - a stepwise approach to facilitate patient participation in HPH policy and practice

# ROJATZ Daniela, WIECZOREK Christina, FORSTER Rudolf, PELIKAN Jürgen

#### Introduction

Participation is one key value and goal of health promoting hospitals (HPH). The self-help friendly hospitals (SHFH) approach promotes self-help related patient-orientation. SHFH are defined as hospitals that facilitate contacts between patients and self-help groups (SHG), support SHG in their work and integrate the experiential knowledge of SHG in hospital routines (participation). The approach encompasses defined collaboration criterions and recurring evaluation of collaboration. It can be considered as starting point to increase patient-orientation and participation in HPH policy and practice.

#### Purpose/Methods

The aim is to develop and propose an approach to strengthen collaboration with and participation of SHG in HPH policy and practice. The German concept of SHFH and empirical evidence on the implementation of SHFH in Germany and Austria were analyzed. In addition, the role of SHG in HPH using policy documents, conference proceedings and a special survey of HPH-network coordinators was investigated.

#### Results

Data analysis reveals the need for a step-wise approach to move from a complementary to a participatory role of SHG within HPH:

1. Information of patients/relatives about SHG;

2. Active facilitation of contact between patients and SHG;

3. Support of activities of SHG;

4. Involvement of SHG in the monitoring of patient orientation;

5. Involvement of specific SHG in the development/ implementation of specific patient-related programs;

6. Involvement of representatives of different SHG in planning and strategy development

#### Conclusions

The suggested step-wise approach could serve as starting point for facilitating collaboration with SHG and patient participation in HPH policy and practice. The six steps could be taken up by an international working group on SHFH within HPH to further develop collaboration and participatory practices. The German competence network of 'Self-help Friendliness and Patient Centeredness in the Health Care System' could serve as inspiring example.

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# Providing an Integrated cancer care services for patients in a community-based hospital through multidisciplinary teams

# LAW Kim Seng, KUO Hsiu Feng, WU Xin Yi, TSAI Yi Tsen

#### Introduction

In Taiwan, it is mandatory for every cancer-treating hospital to set up a platform to provide a streamline, effective and affordable services for every single cancer patient as according to regulation. As a community hospital in rural area of Metropolitan Taichung Taiwan ,we set up an integrated cancer resource center with multidisciplinary specialties which involved physicians, case managers, social workers, specialist nurses, psychologists, nutritionists, physical therapist as well as palliative nurses providing not only the necessary cancer information for the patients and his(her) families but also the psychological and social economic support which was comparable to resource-rich urban hospital.

#### Purpose/Methods

By reviewing the retrospective data collected since the setting up of our cancer resource center since Jan 2011 through Oct 2015, we analyzed the demographic of patients seeking information regarding cancer treatment and by giving questionnaire to our patients and their family in addition to twice weekly conference involving different aspect of specialties for quality control of our services. We explored the trends of patients seeking different aspects of need by analyzing data throughout the study period in order to improve our quality of services providing to our patients.

#### Results

From Jan 2011 through Oct 2015, our cancer resource center providing an average of 1,151 services to patients as well as their families who was coping with cancer . There is a steady growth of services during the study period covering almost all aspects of cancer with the patients inflicted with breast cancer, lung cancer and colon cancer comprising the top three. There is also a steady increase of self- seeking patient along with the increasing number of referral from other healthcare provider in our hospital implying the successful promotion of our center through different media and good services provided for the needed patient. The overall satisfaction feedback by our "customer" as reveal through our annual questionnaire shows a high average of 95.6%.

#### Conclusions

By providing an integrated services involving different aspect of specialties dedicated for patients first diagnosed with cancer in a rural hospital we can help patients as well as their families more compliance in their journey coping with cancer not only by given them the up -to -date information but also alleviated the burden through psychological and social economic support.

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#### Session P1.13: Miscellaneous

Whether to extend the times of changing the severe bedridden patients' position will increase the probability of pressure ulcers occurring

## WU Yun-Yu, HONG Pei-Wen, WU Li-Chu, WU Pei-Lin, CHUNG Hsing-Chi, HUANG Ming-shiuan, CHEN Chun-Ching, CHUANG Li-Lin, CHENG Jin-Shiung

#### Introduction

AHCP 2005 propose to change the patients' position and use pressure mattress to reduce the load of the organization, to prevent pressure sores. Guidelines recommend changing position once every two hours. However, most patients may not be really does, because of the treatment and surgery, the occurring of pressure sores did not increase as well. The goal of this study is to figure out if the occurrence of pressure ulcers increase after prolonging the interval of changing position for critical patients?

#### Purpose/Methods

Based on PICO, we search the database of PubMed, Cochrane Library, A systemic review which is a randomized-control study was included. The result of study indicated that there is no significant difference between the subgroup of reposition every 2 and 3 hours while lying on standard mattress [RR: 0.90,95% CI:0.69-1.16, P=0.41]. when using air cushion mattresses, the incidences of pressure sores were not significantly different when changing the patient's position every four or six hours [RR: 0.73, 95% CI:0.53-1.02, P=0.065].

#### Results

Our study was held in a medical center adult intensive care unit in southern Taiwan, with a total of 55patients (control group:25patients, changed the position every two hours; experimental group: 30 patients, changed the position every three hours). The inclusion criteria were admission≥48 hours, Braden score>13,and bed-ridden patients with no pressure sores using pressure-relieving mattresses. The study period was May 1, to June 30, 2015.We found that the two groups had no statistical difference in the incidence of pressure sores.

#### Conclusions

After evidence-based medicine application, there was no statistical difference in the incidence of pressure sores when changing the patient's position every two or three hours. Extending the time of changing positions in critical bed-ridden patients did not increase the incidence of pressure sores. We used a pain assessment tool to assess the clear consciousness, post-op patients in the experimental group. The pain score decreased from 6 to 3 and the quality of sleep increased.

#### Comments

Correctly changing position can reduce the excess load on the tissue, thus preventing pressure sores. We know from evidence-based medicine application that extending the time of changing

positions in critical bed-ridden patients did not increase the incidence of pressure sores but because the disease severity of clinical patients are different,the risk factors causing pressure sores may increase. Thus, we recommend when taking care of patients, assess as a whole and evaluate the change positions so that patients can have quality care.

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## Is neck massage risk-free? A Rare case of Paralysis after neck massage

### TAN HAN LING, FARIZ ZAKARIA AMIR, ABDULLAH TAJUDDIN

#### Introduction

Neck manipulation is commonly used as a part of complimentary treatment for neck pain and stiffness. Vigorous manoeuvres however could bring serious adverse effect. We report a rare case of tetraplegia and spinal shock after neck manipulation.

#### Purpose/Methods

A 33 years old truck driver presented with paralysis of all four limbs 2 days after neck manipulation by a certified traditional healer for shoulder spasm and pain. Post manipulation, he experiences weaknesses of all four limbs in which became markedly apparent two days later. There were no bruising around the cervical region. The power of both upper limbs and lower limbs were grade 2 and 0 respectively (MRC), with sensations diminished from C6 below, consistent with ASIA A.

#### Results

An MRI cervical showed large epidural hematoma, with cord edema at the mentioned level. The hematoma had caused spinal canal narrowing with narrowest at spinal canal C6/C7 measuring 6.2mm (AP) x 12.2mm (W). The hematoma also appears to extend into the right exit foraminae of C5/C6 and C6/C7 with impingement of the respective nerve roots. There were no evidence of vertebral body fracture or subluxation.

#### **Conclusions**

Complications have been associated with neck massage however few cases have been reported in the world thus far. It is quite evident that the neck manipulation lead to our patient's acute paralysis. There were presence of epidural hematoma without any spinal column injury, it further signifies that complications from neck manipulation can occur even in healthy individuals. Thus the public should be educated and made aware of the possible complications related to neck manipulation, some could be serious and life threatening.

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## Effectiveness of using acupressure massage for improving oral health in home care patients

#### YUHSUAN Tang

#### Introduction

Oral health is important for disable elder patients, but there are several limitation such as reduced saliva secretion, impaired physical and cognitive function, and poor self-efficacy which usually makes them in poor oral health condition. By using acupressure massage maneuver, which are expected to increase microcirculation and stimulate saliva secretion, has potential in improving oral health condition in disable patients.

#### Purpose/Methods

The purpose of this study was to investigate the effectiveness in improving oral health condition by using acupressure massage maneuver. The project was performed between January, 2013 and June, 2013. The participants included 83 home care patients who received regular home care service by Kaohsiung Medical University Hospital. After well training in evaluating oral health condition and acupressure massage maneuver to the home care nurses, the patients' oral health condition was evaluated by home care nurses before and after acupressure massage were performed. The acupressure massage maneuver was also recorded into a DVD as an education tool for the each patient's caregiver. The effectiveness of the intervention on oral health condition was evaluated.

#### Results

Before intervention, the prevalence of proper oral health was 86.3% and it was improved to 98.7% after the intervention among the home care patients. The most significant improvement was the "no unusual smell of oral cavity" which was 71.1% before intervention, and it was improved to 96.7% after intervention. The results showed a significant effectiveness in improving oral health condition by using acupressure massage to the home care patients.

#### Conclusions

Our report showed that by using acupuncture massage for improving oral care condition in home care patients was effective.

#### Comments

Acupressure massage could improve oral health condition in disable patient, we suggest that it should be worth promoting to the family with disable patient as a routine care of oral health.

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Strengthening total care of perimenopausal women with a simple questionnaire during out-patientdepartment visit

#### SU Wenhsiang, CHOU Cihhen, LIN Jingwang, LIU Yungchi, WU Choachih, LIN Chiawei

#### Introduction

A total care of menopausal women demands attention since effective hormone therapy is no longer considered safe in dealing with these climacteric symptoms. The care of this group of patients became more and more complicated due to the decreased patients population and attention from care giver. However, these problems still cause mental and physical stresses that jeopardize their life quality. A simple questionnaire was used to enhance the care of these patients with excellent results in a local rural hospital.

#### Purpose/Methods

A questionnaire with five simple questions was disposed at specific sections of gynecologic OPD to patients around 45 to 69 years old for 12 months. Specific diagnostic tools including Pap's smear, bone density, hormone test, urodynamic study, and mammography were arranged and proper treatment was recommended according to their answers. The usage of all relative diagnostic modality was traced and compared. A chisquared test was used to assess the statistical results and a p-value below 0.01 was interpreted as significant.

#### Results

The usage rate of those diagnostic and treatment modalities were among 0.3% to 24% for the control group with patients of age 45 to 69 from all OPD. The usage rate for the first six months was around 9% to 40% in the study group with significant increase when compared to the relatively stable Pap's smear rate for all groups. However, no significant difference was documented in the comparison between two time intervals after initiation of the protocol.

#### Conclusions

Such a simple project proved that attentions for these elderly to improve their total care was welcomed and resulted in improved usage rate of relative diagnostic and treatment modalities. However, there are still other factors influencing their decision to take those examinations or not. One of these possible factors should be the interpretation of the questionnaire and delicate recommendation from physicians. A committed hospital and care givers with continuous attention to these women might play the most important role.

#### Comments

The statistical credibility might be rough due to different base population in our study. However, this study showed the demands of medical examination and care for this group of patients are underestimated. In the near future, taking care of elderly women will be a big challenge for the health institute in Taiwan and around the world, too. With this basic project as a foundation, we will try to extend it to a wider application, like a booklet or a club.

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Dachieng Hosptital, Miaoli, Taiwan 36, Gong-Jing Road, 36049 Miaoli city, Miaoli county, TWN solson888@gmail.com Effectiveness of the use of the multidisciplinary care model Improve quality of life in patients with pulmonary arterial hypertension

YU Shiang-Mei, KU Yan-Chiou, LIN Li-Ying, TSENG Hung-Chin, CHUNG Yi-Jui, HUANG Wei-Chun, CHENG Chin-Chang, YANG Jin-Shiou, LIN Ko-Long, CHENG Jin-Shiung

#### Introduction

Pulmonary arterial hypertension (PAH) is a complex disease with a high morbidity and mortality. Furthermore, PAH is associated with reductions in health-related quality of life (HRQL). Althoug invention of new drug therapy in recent decade, the patient care still play an important role in improvement of HRQL. Howevere, there was no publication to study the relationship between multidisciplinary care model and quality of life in Taiwanese PAH patients. Therefore, we investigated whether the multidisciplinary care model could improve quality of life in patients with PAH or not?

#### Purpose/Methods

A multidisciplinary team among intensivists, cardiologists, pulmonologists, cardiac surgeons, rheumatologists, chest surgeons, rehabilitation physicians, psychologist, pharmacologists, hospice care physicians, nutritionist, social workers and nursing staffs in Kaohsiung veterans Genreal hospital was organized. The key interventions include home based rehabilitation therapy, 24 hours hot line care, PAH care nurse training program, hospice care information and consultation, phychological care and autogenic training, prompt PAH referral system, social care connections, on-line self PAH risk assessment system, on-line and innovative mobile apps patient instructions, facebook patient care group and ourdoor PAH patient education program. The PAH patients were divided into three groups: pre-interventional group from May to Dec 2013, Interventional group from Jan to June 2014 and postinterventional group from July 2014 to Feb 2015. HRQL was measured using the Short Form 36 Health Survey (SF-36) in all enrolled subjects.

#### Results

The average physical compartment scale of SF-36, including physical functioning; role limitations due to physical health, pain and general health improved from  $49 \pm 30$  in pre-interventional group, to  $52 \pm 34$  in interventional group and to  $73 \pm 20$  in post-interventional group (p<0.05).

#### Conclusions

The average mental compartment scale of SF-36 , including role limitations due to emotional problems, energy/fatigue, emotional well-being and social functioning, improved from 54  $\pm$  30 in pre-interventional group, to 56  $\pm$  31 in interventional group and to 73  $\pm$  19 in post-interventional group (p<0.05).

#### Comments

The study showed multidisciplinary care model could improve quality of life in patients with PAH via continous quality improvement method.

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#### Utilizing Innovative Process to Increase the Report Rate of Potential Medical Disputes among Nurses

#### WENG Kuo Yi, LIN Mei Yen, ZHAN Yu Xuan

#### Introduction

With the rising awareness of consumerism, If the patient's expectation was not met, potential medical dispute such as complaints can progress to serious disputes. According to the statistics of our institution, for 30 cases of reported potential medical disputes, only 4 (13.3%) were reported by the nursing personnel. The main reason for non-report among nurses is because the lack of an anonymous reporting system. This program was commenced to establish a truly anonymous reporting process to increase the reporting rate.

#### Purpose/Methods

The following improvements were established to increase the reporting rate of potential medical disputes by nursing personnel: 1.Establish potential medical dispute report criteria and conduct nursing personnel training. 2.Establish innovative reporting process: online anonymous report. The reports are received and investigated by the hospital's patient safety center and reported to the primary physician for assistance in communicating with the patients. 3.Provide an instant reporting hotline for nursing personnel.

#### Results

After establishing the aforementioned improvements, the nurse's potential medical dispute report rate increased from 13.3% to the targeted 46.6%. The nursing personnel's satisfaction of the new reporting system is 89.0%.

#### **Conclusions**

Medical dispute is a serious issue for hospitals. The social culture in Taiwan is different than those of other countries, where physicians involved in the care process has more power than others staff member. Therefore, the anonymous reporting system established in this study can facilitate a breakthrough of the hierarchy to promote active and anonymous report of potential medical disputes; establish healthy physician, nurse, and patient relationships for the purpose of medical dispute preventions.

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# Examining the Health Care Services in Correctional Facilities - Experience of a Teaching Hospital in Northern Taiwan

#### SHIH Po-Jen, WANG Wen-Yen

#### Introduction

Correctional facilities have high population density hence hygiene and health care services are important elements in these settings. However, correctional facilities have continually failed to provide adequate care. Contributing factors include an increasing shortage of staff, funding, and facilities. Providing health care services in correctional facilities is the responsibility of public hospitals, with the goals of enhancing the accessibility and quality of health services for inmates.

#### Purpose/Methods

This study performed descriptive statistical analyses on the data regarding the health care services provided to correctional facilities by a teaching hospital in northern Taiwan between January and June 2015.

#### Results

During the study period, 21 types of specialized care were provides. 3706 services were provides, of which psychiatric care accounted for the majority (816 services 22.02%) of services, followed by endocrinology (21.96%), and surgery (20.32%). Halftablets were placed in single-dose packaging to reduce difficulty and error related to dispensing of medication. As an example of this, the error rate in 2014 was 0%.

#### Conclusions

Complete implementation of single-dose packaging and multiple drug verification mechanism help reduce dispensing and medication error. However, with limited facilities and staff, workers need to put in increased effort and the superiors of the hospital need to support the staff to encourage the provision of more attentive health care services from the heart.

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## Improvement Strategies for Reducing Hospital Intensive Care Unit Incidence Density

#### YANG Hui-Ju, DAI Chin-Ying, CHIU Ling-Hui

#### Introduction

The hospital's Intensive Care Unit (ICU) ranked the highest in terms of hospital ward infection incidence rates from January to May 2014. The ICU incidence density is 9.65%, which is higher than 6.88% obtained through the Taiwan Quality Indicator Project survey. Therefore, the purpose of this study is to find deficiencies of the Standard Precaution implemented by medical

personnel and formulate and implement improvement strategies in order to reduce ICU incidence density.

#### Purpose/Methods

The implementation is divided into three stages: Randomly observe the current situation of the medical personnel's implementation of the Standard Precaution; 2. Analyze deficiencies concerning the current situation; 3. Formulate improvement strategies; 4. Implement and evaluate the improvement strategies.

#### Results

48 medical personnel professionals (including nurses, doctors, assistants) implemented the Standard Precaution improvement strategies. The 5-month results comprise: 1. The accuracy rate of the Standard Precaution implementation increased from 32.5% to 92.9%; 2. The accuracy rate of care knowledge in the Standard Precaution increased from 65.2% to 92%; the hand-washing compliance rate increased from 75% to 100%; the incidence density decreased to 5.85%, reaching the statistical significant difference of p<0.05.

#### **Conclusions**

The analysis of the deficiencies of the Standard Precaution implemented by the medical personnel and the formulation and implementation of the improvement strategies effectively reduced the ICU incidence density.

#### Comments

In the complex and high-pressure environment, effective teamwork can increase efficiency to reduce human error and promote job satisfaction, better to help them achieve their goals and tasks. To improve the quality of care in the ICU.

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## Improving the medical quality indicators performance by pay for performance

#### LIN Chin-Feng, HSU Jiin-Chyr, SHIH Ling Na, WU Wan Ting, HOU Mei-Su, WANG Li-Feng, HUNG Su-Ying

#### Introduction

Quality Indicators is an important measure tool of medical practice quality. There were many good outcome by using Quality Indicators for improving monitor and managing medical practice. Many countries have implemented pay for performance to improving the quality of healthcare. To investigate this possibility, we study the efficiency of combine implement of medical quality indicators and pay for performance.

#### Purpose/Methods

The study funded in part by Taiwan's National Health Insurance program from 2013 to 2016. Total 380 hospitals, leading by 19medical center, to implement medical quality indicators and

use these indicators to improving clinical performance. The goal of this program is to establish a national medical quality indicators platform and benchmarking team.

#### Results

After importing plan, the participant hospital establish 25 to 35 quality indictor including automatic, semi-automatic and manual collection. About 60% indicators can be collected automatically from hospital information system. Backtracking way through medical records to improve the consistence of indicators.

#### Conclusions

Monitoring and management indicators are the goal of medical institutions around the word. After implant pay for performance system the collecting efficiency and the quality of medical practice are both improved.

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#### Multifactorial fall prevention program to increase patient safety and health promotion

#### PARK Ihn-Sook, YOON So-Young, HONG Hee-Jung, LEE Kyung-Yi, KANG Sun-Sil, KANG Gum-Ok, SON In-Sook, HAM Choon-Sun

#### Introduction

Preventing the number of falls in acute care hospitals is a major challenge, and identifying a positive solution has remained elusive. The purpose of this study was to develop a multifactorial fall prevention program and to examine whether this program has any impact on the number of fall rates and fall rates which led to injuries.

#### **Purpose/Methods**

The authors analysed the 2013 Annual Fall Report identifying the root cause in each case, and found that most falls occurred due to knowledge deficit (present in both patient and medical staff), patient factors (i.e. weak general conditions), and environmental factors. They initiated a multifactorial fall prevention program to increase patient safety and health promotion. The multifactorial fall prevention intervention program included periodic fall-risk assessments, door/bed/patient fall-risk alerts, environmental and equipment modifications, staff and patient safety education, and additional assistance with transfer and toileting. To improve the patient's general condition and prevent the number of falls due to weak general conditions (the leading cause of falls in 2013), lower extremity strengthening exercises were instructed by animated exercise clips with demonstrations given by the nursing staff.

#### Results

After implementing the multifactorial fall prevention program from July 2014 to December 2014, fall accidents decreased by 17 points and the fall rate per 1000 days decreased by 0.11 compared to 2013.

#### **Conclusions**

Hospitals need to reduce the number of falls by using multifactorial fall prevention programs and use root-cause analysis and evidence-based interventions to reduce the number of falls and injuries.

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## Analyze the reasons that public servants choose the hospitals for health examination

#### SU Jia-Chen, LIU Kun-Yi

#### Introduction

In Taiwan, the public servants who reach the age of 40 can apply for the government subsidies and take an official leave if they need a medical check-up every two year. A lot of hospitals release many physical examinations in order to attract these public servants to their hospitals. The purpose of the study is to understand what factors that public servants would consider in choosing hospitals to do a physical examination, and hope it is helpful for hospitals.

#### Purpose/Methods

The study uses the questionnaire which each one contains separate parts—one with columns for multiple-choice questions and the other with each open-ended questions to answer for it. It aims at public servants who reach the age of 40 and apply for the health examination aid work in one of three courts in Kaohsiung. According to the review, 95 out of total 150 questionnaires are returned from the field which means the ratio of receiving those polls is around 63%.

#### Results

The study results indicate that 85% of public servants consider hospital level to be the principal factor in selecting a hospital to receive a health examination in. The public servants prefer medical centers to regional or district hospitals. The next most critical factor is commutation; 70% of the public servants prefer undergoing an examination in a hospital located in a downtown area. Other factors such as public or private ownership, the date that a hospital is established, or a history of visiting the hospital do not exert a substantial influence on the public servants' hospital selection.

#### **Conclusions**

Suburban hospitals that are not medical centers may be at a disadvantage in competing with other hospitals regarding health examination services. These suburban hospitals should propose examination items other than the regular items and provide, if necessary, price competitive plans to attract public servants to undergo their health examinations there.

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## Hospice versus Hospital Care? A Cost-Survival Benefit Analysis

#### HO Hsu-Chueh, LEE Cheng-Yung

#### Introduction

Do no harm seems essential for approaching terminal cancer patients but is frequently challenged by the expectation of curative intent from family members. Therefore, decision making toward terminal illness becomes a dilemma for patients, families, and health care providers. Accordingly many health policies develop guidelines to deal with end of life. The purpose of this study is to investigate if hospice care has lower medical expenses without compromising quality than other care settings for end-of-life head and neck cancer patients.

#### Purpose/Methods

From Aug. 2000 to Dec. 2010, a retrospective review was conducted in 564 head and neck patients who died in hospital system or died within three days after discharge. These patients were hospitalized in four care settings including hospice, intensive care unit (ICU), general ward (GW), and nursing ward (NW). The medical expenses included four main parts: bed, medical personnel, pharmaceutical, and procedure fee.

#### Results

A total of 564 patients were enrolled in our study. The highest total and daily expense of care setting was ICU, followed by GW, NW, and hospice. Besides, ICU care also had the highest bed fee, pharmaceutical, medical personnel, and procedure fee, and hospice care had the lowest pharmaceutical and bed fee. Besides, the percentage of pharmaceutical fee was the highest part at GW and NW. There was no significant statistical difference in patient or family satisfaction among these four groups.

#### Conclusions

Compared with the non-hospice service, hospice care needs the lowest total and daily medical expenses because of its lower pharmaceutical and bed fee. Hence, hospice care is the best way to reduce medical expense and to prevent wasting of medical resources in a health insurance system.

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## Satisfaction of course to teach after graduation Institute of Mental Health

#### SU En-Ping, SHEN Shu-Hwa

#### Introduction

The purpose of this study was to explore teaching effectiveness of a clinical nursing staff after graduating from related graduate institute, to understand and analysis the mental health curriculum effectiveness and satisfaction, it is important to provide clinical nursing teaching and learning, encourage nurses to pursue further studies in order to facilitate the importance of

working, and as a basis for continuous quality improvement program.

#### Purpose/Methods

Questionnaire designed by the school, one was the curriculum goal questionnaire, 8 question adopted Likert Scale, another was course satisfaction questionnaire a total of 19 questions the subject, adopted 6 points scoring method manner, questionnaires via the Internet platform. Exclude student absences to attend a number of subjects of the Section whole semester when teaching third of the total number of persons, if not in the notes to the open questions is not included in the questionnaires .

#### Results

A total number of 117 valid questionnaires, the highest satisfaction to work together to complete special report satisfaction by 4.53% and ponder their own issues, learn to find resources, develop the habit of lifelong learning satisfaction was 4.51 percent for the highest. Case to be discussed issues related to the care, learn how to use professional skills in the course of the nursing work 4.47% is the lowest satisfaction.

#### **Conclusions**

This study curriculum goals and curriculum satisfaction valuation teach within a year, via the questionnaire can be found via the Institute after graduating from related departments, can really enhance the professional knowledge on the quality of teaching curriculum, but to arouse students' motivation to learn and interest, still teaching and learning, and constantly teaching and learning lead to more motivated students.

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## Art Therapy program for the psychological support of psychiatric inpatient

### YUN Kang Sup, LEE Sang Hyung, JEON Hye Won, SHIN Ji Young, LEE Jung Eun

#### Introduction

It is necessary to provide a variety of psychosocial intervention programs in conjunction with drug therapy for the psychiatric patients who have serious problems in functional and psychological aspects. Psychiatric patients usually have a difficulty to express verbally their thoughts and feelings. Art therapy is one helpful way for hospitalized patients to express their emotions and reduce adverse psychological outcomes, which leads these patients eventually to alleviate emotional stress and to become relieved.

#### Purpose/Methods

This program is designed to support treatment compliance by stressing constructive experience to the improved relaxation rather than analyzing the root causes of the problems. This program was conducted for inpatients of psychiatric inpatient for one hour once a week from April to December in 2015. Participants were recruited based on ability to participating the

program on daily base. The program was carried out by 1 professional volunteer and 1 ward nurse. Satisfaction survey was conducted at the end of program.

#### Results

71% of the participations said it was effective to relieve stress, and 73% would like to rejoin the program. Overall satisfaction about the program was as high as 86%. In this program, the participants felt the confidence and sense of achievement in the course of work production. Therefore, they were able to express their feelings through the work, and reflect on their own. This program affected on participants' stress relieve as well as had a positive impact on treatment. The patients' psychological states expressed through work were shared with psychiatrists, which contributes to the process of treatment of the patient.

#### Conclusions

It is difficult to observe the changes in the patient through the program because of the short hospital stay(average 6.5days). However, it is significant that the patients had a positive experience through completing the art work, and the program helped patents in therapeutic aspect by sharing the psychological state of patients expressed through the work with psychiatrists. We conclude that, if it is applied to all other patients, especially chronic disease patients and cancer patients, this program will abe able to give a positive effect on increasing the patient's quality of life.

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## Session P2.1: Improving health at work

Healthcare staffs' need of workplace health promotion services: the experience from a medical system in southern Taiwan

#### KUO Yen-hung, LI Miao-tzu, CHENG Tainjunn

#### Introduction

In Taiwan, with the over 90% high rate of labor force participation, it brings the importance of workplace health promotion. However, healthcare staffs constitute the mainly healthcare services whose health condition are most likely to be ignored. This study aimed at exploring healthcare staffs' need of health promotion services in a medical system. By the understand of factors affecting the choose of health promotion services, we furthermore have the strategic suggestion on the development of workplace health promotion.

#### Purpose/Methods

Follow the guideline of Ottawa charter, 35 of HP services were promoted in the workplace. We did a cross-sectional survey on the healthcare staffs over a medical system (with about 2,500 beds) in southern Taiwan. A total of 1,171 participants were distributed by the stratified sampling from over 6,000 employees and reached the valid sample of 1,041 responses.

#### Results

The most rated needs of HP services include " design of incentives for annual health exams", "coupons for in-hospital low-fat meals & vegetable salad meals", " setting of exclusive massage station for employees", " design of recipes for health", and "the provide of health restoration classes on Chinese herbal medicine". Furthermore, a binary logistic regression analysis showed the factors affecting the choice of the promoted services significantly and mostly by predisposing conditions.

#### Conclusions

Based on the findings, this study suggests that the need of health promotion services should be included in the workplace health promotion policy. Meanwhile, it is emphasized to put employees' gender and participatory experience into consideration on the construction of a supportive environment and vary promoting strategies based on differentiation of gender and participatory development experience.

#### Comments

The current study, to our knowledge, integrated both theoretical perspective and user centered focus to make the workplace health promotion activities be more feasible and cost-effective for the implementation among healthcare professionals. This study will provide more inspirations on the service design of workplace health promotion.

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## A Study on Clinic Nurses Turnover Intention on Taipei Metropolitan Area in Taiwan

#### CHEN Yu-Ling, YAU Wen-Jen, WANG Wen-Yen

#### Introduction

Clinical nursing manpower shortage is an important issue in Taiwan for recent years. The current research are more to study on nursing manpower and foster newly hires, rarely investigate reasons for departing staff. For patient safety and keep medical quality, the aim of study is understand left nurses turnover intention and find solution keep senior nurses stay in clinical.

#### Purpose/Methods

This is a qualitative research, interviews on Taipei Metropolitan Area in Taiwan clinical nurses whom work seniority 0-2 years, 3-5 years and over 5 years for each of two or three departing staff. Interview outline develop base on Chinese Version of the Job Content Questionnaire (C-JCQ), which content comprising (1) job demand, (2) Organizational roles, (3) Career progress (4) Corelationship and (5) Organization structure on ward.

#### Results

We found seniority zero to two years reason for leaving are almost organization roles and co-relationship. Seniority 3-5 years staff reason for leaving are job demand and career progress. More than five years staff reason for leaving include career progress and organization structure on working issues.

#### Conclusions

Graduate and new nurses face into clinical job stress is very huge role reversal, if they failed to get support among co-worker or peers, clinical work can easy frustrated and powerless susceptible, therefore 3-5 years staff and more than five years of seniority have mature ability of work, But the majority leaving reasons is facing on family roles and career progress can't move on.

#### Comments

Majority reason of leaving is if the family can not support the clinical nursing staff or shift of clinical work in hospital, it's easy to want to quit or choose to go out patient department clinics, hemodialysis center, public health center and school to avoid night shift and field continue to work. The authorities can use this result to develop relevant contingency measures to increase willingness to remain in clinical.

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# The relationship between work values and the well-being healthcare workforce environment on new nursing graduates

#### TSENG Hui-Chen, WENG Wei-Che

#### Introduction

Retaining new nursing graduates in health care workforce systems is a concerning issue. This study examined the relationship that the new nursing graduates considered the work values for their career development on the healthcare workforce organizations. The managers of nursing practice could further understand the values on new nursing graduates of technology generations.

#### Purpose/Methods

A cross-sectional survey was conducted by using structured validity and reliability questionnaires and a convenience sampling method. A total of 250 new baccalaureate nursing graduates from southern Taiwan participated in this study. The structured questionnaires included the demographic data, the Work Value Inventory and the Willingness to Nursing Work Scale.

#### Results

This study showed that the average degrees of four factors of the Work Value Inventory, including the value of interpersonal interaction (mean =  $4.67 \pm 0.53$ ), utility value (mean =  $4.51 \pm$ 0.57), intrinsic value (mean= 4.47 ± 0.56) and attainment value (mean =  $4.21 \pm 0.56$ ). The average degree of willingness to be nurses among new nursing graduates was 3.95 ± 1.18 (range from 0-5). The average degree of making the best of efforts to intend in the nursing workforce was 3.22±1.54 (range from 0 - 5). There was a medium relationship (r = 0.29) between the intrinsic value and the willingness on nursing workforce. There was a medium relationship (r = 0.32) between the attainment value and the willingness on nursing workforce. There was a low relationship (r = 0.25) between the intrinsic value and perseverance on nursing workforce. There was a medium relationship (r = 0.32) between the attainment value and perseverance on nursing workforce.

#### Conclusions

This study explored the work values of nursing profession as a sample of new nursing graduates just choosing the nursing environment. Health care organizations could understand the work values of new nursing graduates; build the well-being workforce environment for the career development of new nursing graduates.

#### Comments

The study suggested that while attainment, utility, intrinsic and interpersonal interaction values may have influenced nursing work. Health care organizations would do well to promote these values and meanings leading to the education and recruitment of individuals suited to the work of nursing.

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## Reducing lower back pain among trainee nurses

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#### Introduction

A survey conducted in our hospital confirmed that more than half of our nursing staff suffer from lower back pain (LBP) with 13% experiencing intense pain. Since 2013, a rhythmic exercise program was introduced by our hospital's safety and health committee which requires nurses to perform guided morning exercises before commencing work. However, since nurses do undertake tasks that increases the risk of LBP, education of preventive measures that can be applied during their assignments is also important.

#### Purpose/Methods

Since 2015, our hospital's safety and health committee introduced an education program on LBP prevention aimed at trainee nurses. Trainee nurses undergo a seminar course which educate them on the basics of LBP and preventive measures such as the use of various tools, posture and positioning as well as palliative measures to take when experiencing LBP. A self-developed pamphlet on LBP prevention is also distributed to the trainees for their future reference.

#### Results

A total of 13 trainee nurses completed the program. Questionnaires were taken before at the beginning of the program and half a year after completing the course. Before the education program, 4 trainees reported LBP. This number did not change after six months but the palliative measures taken slightly differed after the course. The application of preventive measures during various assignments also did not change before and after completing the program.

#### Conclusions

The introduction of an education program on LBP may increase the awareness among trainee nurses on the importance of taking preventive measures during their daily assignments. In practice however, the application of these measures is limited by the workload and cooperation extended in their respective departments. Further progress is needed and should be attainable by expanding the program to involve senior nursing staff as well as head of departments in order to reduce the burden of LBP on healthcare employees.

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## Sense of Coherence, perceives healt and optimisme in home care's nurses

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#### Introduction

Nurses are subjected to stressors and therefore suitable for the study of the sense of coherence (SOC). There is evidence that the SOC is related to health and optimism in the workplace. Objective: To relate the sense of coherence, perceived health and optimism of nurses in health centers of Girona.

#### Purpose/Methods

Descriptive, cross-sectional study of nurses in the health centers of Girona (Spain) (n = 156). Sociodemographic variables studied, chronic health problems, social support, family conflicts and perceived health by EuroQol 5D questionaries. The sense of coherence was analyzed by the SOC-13 questionnaire. Dispositional optimism was analyzed by LOT-R questionnaire. The study was approved by the ethics committee. It has been considered the significance level of p <0.05 with 95% CI.

#### Results

There was participated 109 nurses, mean age 37.7 years (SD 10), 90.8% are women. 77.6% job security. The average health score was 85.5 (SD 11.4). The SOC medium punctuation obtained is 67.96 (10.7) and the average of nurses optimism is 22.07 (SD 3,70). At higher levels of SOC, higher scores on perceived health (r = 0.413; p = 0.000) and optimism (r = 0.432; p = 0.000).

#### **Conclusions**

Home care nurses present high SOC, good perceived health and good levels of optimism. Participants with higher SOC have higher perception of health and higher levels of optimism. This research contributes to the knowledge of SOC and its relationship with the optimism of nurses, understanding of the characteristics related to occupational health, allowing promote prevention programs and empowerment of professionals.

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Regular jogging improves the body fat composition of overweighted hospital staffs

#### TSAI CHIA-CHUN, WENG Yi-Hui, CHANG Yu-Han, YIN PIN-YI, CHEN SZU-Miao

#### Introduction

The prevalence of obesity has raised growing significantly and obesity associated with many chronic diseases closely. Exercise

can promote physical fitness and relieve stress, but hospital staffs are always busy and lack of exercise. They also have higher prevalence of overweight and obesity. Therefore, we use the park near our hospital to promote a regular jogging exercise. We want to train exercise habits to improve objective body composition of our employees.

#### Purpose/Methods

From December 30, 2014 to June 2, 2015, every Tuesday night, we arranged a regular jogging exercise at Kaohsiung central park for 1.5 hours in total of 21 times. Participants were employees from Kaohsiung Municipal Ta-Tung Hospital. The number of participating is personal option. Before and after the exercise, we record objective body composition, including BMI, body fat, waist-hip ratio and basal metabolic rate, to evaluate the improvement.

#### Results

Of total 105 employees, 75 are classified in the non-overweighted group (BMI<24), and 30 (53%) in the overweighted group(BMI≥4). There were no differences in patient age, gender, participating times, and jogging laps between the 2 groups. However, the overweighted group reduced their body fat composition significantly (p = 0.034)

#### Conclusions

Our results indicated that regular jogging exercise could improve the body fat composition of overweighted employees. Healthy hospital staffs are the most valuable assets of patients. We suggest that hospital managers could use the environment or facility near the hospital to promote a regular exercise for staffs, especially for overweighted and obese ones.

#### Comments

Healthy hospital staffs are the most valuable assets of patients. But in Taiwan, hospital staffs are always too busy to have regular exercise habits. It is my great honor to share our effective experience in HPH conferences.

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#### The Influence of Road Running on the Physical and Mental Health of Medical Personnel

#### LI Yu-Ju, LAI Yen-Ju, CHEN Yu-Hsin, CHUNG Hsing-Chi, WU Li-Chu, CHENG Jin-Shiung

#### Introduction

Medical personnel are prone to yield fatigue and burnout from daily work because of the stress and pressure in working environment, and that'll influence on their physical, mental health and the quality of medical care they provide. Health-promoting activities can bring comfort to their body, mind, and also emotion. Therefore, it is essential to provide appropriate health-promoting activities, such as road running activities, to

medical personnel in order to improve their physical and mental health.

#### Purpose/Methods

Through arranging road running activities, we expect to help medical personnel get into the habit of regular exercise, decrease their body fat, relieve their work pressure. During the road running activities, there would be more working efficiency, satisfaction would be improved, and a harmonious working environment would be created. This project was conducted in a medical center adult intensive care unit in Taiwan. The team arranged many road running activities for the health care workers to take part in.

#### Results

A total of 75 questionnaires. There were 27 care workers participated in this project. The results showed all of the participants:24% had decreased their body fat or body weight, 87~90% felt their work stress, pressure and tension emotions were relieved; 65% exercised regularly at least once or twice a week; 83.1% of the satisfaction degree of over 4 points were obtained; 85% indicated it's necessary to hold this project in the future; 92.2% showed they'll join this project next year.

#### **Conclusions**

Medical personnel in the intensive care unit work under pressure environment every day. By arranging health-promoting activities, such as road running, we can help them improve their physical and mental health, and thus improve the quality of medical care they provide. There are more health care workers making it a rule to exercise regularly after taking part in the project.

#### Comments

Because medical personnel work different shifts, it is difficult for them to cultivate the habit of regular exercise. After the project, 67% of the participants still did not regularly exercise. Therefore, we suggest medical institutions should pay more attention to this issue. They should arrange various health-promoting activities, such as road running, regularly to increase the awareness of medical personnel to live a healthy lifestyle.

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## **Encourage employees to change** their sedentary lifestyle and exercise

### CHEN CHIEN-JU, CHEN WAN-SIN, PENG WUN-SI

#### Introduction

In 2014 there were a total of 255 employees in Mennonite Christian Hospital who received a physical fitness test, and 32% of employees performed poorly in the tests of cardiorespiratory endurance. Employees who did the test were reported to spend 2.6 hours per day using smart phones or tablet computers outside their working hours. Based on the results, the health promotion goal for employees in 2015 was to encourage employees to change their sedentary lifestyle and exercise.

#### Purpose/Methods

1.An incentive to use the free application for keeping records of their exercise regimes and to stimulate their interest in exercise. 2. Hire professional coaches to teach employees how to exercise properly. 3. Hold seminars and invite employees with a higher exercise performance level to share their thoughts and encourage their colleagues to work harder. 4. Encourage employees to form small weight-loss groups (3-5 people). Small groups are easy to manage and thus increase the effectiveness of weight control.

#### Results

The 2015 Employee Active Exercise Campaign lasted for six months, encouraging 410 people to get involved. The campaign provided employees with the incentive to use the free application to record the amount of calories burned when exercising. There were 68 people per month on average keeping a record of their active exercise performance with a total of 2,008,589 kcal burned. There were 26 groups participating in the weight-loss campaign and a total of 514 lbs were lost in two months.

#### Conclusions

1. Actively managing employees' activities helped to reduce the cost of management and employees performed better. 2. Providing employees with incentives for achieving their goals at different stages was beneficial in encouraging employees to maintain their goal of regular exercise. 3. With suitable group leaders, smaller groups tend to have a better performance rating in weight control than large groups

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## Enhance workplace nurses muscle endurance

#### LIN Mei-Na, CHENG Jing-Shiung, BI Shin-Yam, LIN Mei-Yu, SUN Pei-Lei, JEANG Shiow-Rong

#### Introduction

Physical fitness is a hot issue all over the world. Moreover, it's also a crucial part in preventive medicine. Muscles and skeletons are two major strength to support our bodies. Without enough muscular strength, muscular ache and fatigue may usually occur. What's more, we might get muscular injury easily. Kim(2011) pointed out that better physical fitness can improve nursing staff's tolerance of work shift and prevent degeneration of physiological function.

#### Purpose/Methods

By means of holding the courses of Power Yoga, Body Combat and training our muscles endurance by sit- up. To form a sports team by selecting 33 colleagues,make sports passports, sign sports agreements, formulate sports plans and urge on each others. Then, team members should take part in the courses of Power Yoga and Body Combat that is holding by the hospital. Adjusting our schedule and increasing the time and strength of exercising.

#### Results

The average age of the 33 members is 36.48 . According to the evaluation from the five rating norm of physical fitness that was published by Taiwan Sports Administration in 2013, 87.88% (29/33) members would be classified into the poor-level or below. By training exercise day by day, the members in normal-level or above increased from 12.12% to 39.39%. Then, we still encourage the members continuously to carry out the plans, and test their muscles three months later. We found that the members in normal-level or above increased from 39.39% to 45.45%.

#### **Conclusions**

Comfortable lives might cause the degeneration of muscles endurance. When we do not have enough muscular endurance, we cannot usually do well in our daily lives and tolerate the nervousness from works. What's more, muscular fatigue and pain would occur easily. That is to say, the endurance and conditioning plays an important role not only on injuries prevention, but also on promotion of work efficiency.

#### Comments

With age, we could still have more flexible and steady movement by training our muscles endurance. Furthermore, members also become slim through the practice in sit- up. It's worth to promote continuously. In order to become the model of the good health, nursing staff not only need to have favorable stamina to take care of the patients, but also need to improve muscle endurance by exercise training.

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A combination of stair stepping and health knowledge learning successfully increased health literacy and health behavior demonstrated in Chimei Hospital

### PENG Cheau-Jane, YEH Chien-Nan, LIU Mei-Yuan, JEN Dong-Hui

#### Introduction

The high pressure originated from medical care related works build barriers for hospital workers to pursue health behaviors at workplace. We aimed to design and test the feasibility of a comprehensive program combining stair stepping and health knowledge learning at workplace, which was called "Chimei Party, healthy and entertaining".

#### Purpose/Methods

Fitness/exercise, food/nutrition related questions (Q) and answers(A) were prepared and posted on stair vertical sides of hospital stairway. For each floor, one quiz Q and one brainstorming riddle Q posted on lower half stairs and corresponding As on upper half stairs. Employees stepping upwards would have time to think over the questions before reading the answers. After learning, employees had a right to

register into website to take a randomly popped quiz test to earn the monthly lot drawing.

#### Results

There were 6,787 self-reported records during the 2 cycle of 6 months program. Days of stepping stairs among a week increased from 3.50 ( $\pm 2.69$ ) to 4.01 ( $\pm 1.86$ ) days (p<0.001), and stairs stepped per day significantly increased from 4.33 ( $\pm 5.59$ ) to 5.96 ( $\pm 4.99$ ) levels (p<0.001). Correct rate of randomly popped fitness/exercise, food/nutrition tests increased from the first to the third months of both cycles (84% increased to 96% for cycle 1, 91% increased to 97% for cycle 2).

#### Conclusions

The 6 months "Chimei Party, healthy and entertaining" program, using 3 medical building stairways as educating media and a self-reporting, quiz testing website platform, made stairway stepping and health knowledge learning feasible at workplace, which successfully improved health literacy and health behavior of workers of Chimei Hospital.

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# A Research on the Effect of Hospital Staff's Involvement in Workplace Health Promotion Program on their Physical Fitness Performance

#### HSU Kuo-En, WANG Mei-Chih, TSENG Jia-Yu, CHEN Sheng-Pyng, TUNG Chen-Yin

#### Introduction

According to most medical institutions for clinical workers, had longer working hours, due to busy taxing, causing fewer and fewer opportunities for physical activity, there for use of promotion point plane, so that employees to participate in activities to enhance health promotion plan fitness at workplace, will be able to improve efficiency, so that employees will pay more attention to their health, give them empowerment capacity and enhance the employee's own health management.

#### **Purpose/Methods**

In this research, in 2013 the number of points on behalf of employees in the health promotion program for the attendance in workplace, also use the points into sports section, knowledge section and individual health management section three categories points. the highest of the points meaning the attendance of health promotion program activities were highest. Then from 2014 to discuss the results from health promotion program in workplace to try to connect the relationship with the physical fitness.

#### Results

1. The activities of individual health management participation, gender, work patterns, job categories are significant differences with age. 2. In Knowledge section participation job categories are significant differences. 3. Sport activity Points will be different to the job categories, age and job seniority. 4. variables for physical

fitness predict outcome of 5.1% (Adjsusted R2 = 0.051), in which "sex", "individual health section points" and "the total number of points," are most significant predictive.

#### **Conclusions**

1. Participation in all types of activities and job categories, age and job seniority are related to the work. Job categories aspect physician are lowest involved, the highest attendance is the administrative staff. 2. Individual Health Management are relate with fitness, workplace health promotion program activity design, it is recommended to individual health management activities planned for the main shaft , give employees empowerment, , but also can improve the attendance for the employee workplace health promotion program activity.

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#### **Activities for employees**

### NOVAKOVA Jana, KUCEROVA Lenka, POLASKOVA Klara

#### Introduction

The key to success in Motol University Hospital is the healthy and satisfied employee, who feels well mentally and physically. Provided the medical worker is satisfied, the probability of satisfied patient increases rapidly. The activities for employees enable staff from different workplaces to meet, they would otherwise never have a chance to meet in a big organization. Healthy life style promotion is the aim of this project, but it also supports the healthy environment in the hospital.

#### Purpose/Methods

Motol University Hospital started in 2015 new projects for the employees. The goals are following: to develop their satisfaction, bring new impulses and reach the change in their lifestyle and view on physical activities. The running course for the beginners had a very positive response among employees. The course lasted for ten weeks and was finished with collective run for 5 kms, some participants could run even more. For other active employees the regular walks within Prague and its surroundings were prepared, with a very good response.

#### Results

The participants of the running course claim that they have established better relationship with their colleagues, friendly athmosphere within the group influenced positively their mood. This helped them also during their work day. Running replenishes energy, release and relaxation after a demanding working day. The course emphasises the sense of belonging to the hospital, this is then reflected in the approach towards the patients. New experiences, such as new attitude, determination and motivation can be further used in patients' education. Regular physical activity, whether running or walking, have a positive impact on back pain, which is frequent occupational disease, particulartly in the hospital.

#### Conclusions

The medical workers are the example for the patients through their behaviour and attitude, they can use their impact to influence the patients and the public. Therefore it is very important for us that our employees thank to newly established activities have a chance to explore new horizons and use them in their normal working life. In 2016 we launch new running courses, we will continue with the walks. We have also started new chorus for the employees, which performs for the patients as well.

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## An Investigation of the Effectiveness of Enhancing Nurses' Cardiorespiratory Endurance

#### JEANG Shiow-Rong, KU Yan-Choiu, LIN Mei-Na, HO Shiou-Shyan, CHEN Chin-Chin, HUANG Feng-Yu, LIN Miaw-I, HSU Hui-Chun, HSU Yu-Ping, CHENG Jin-Shiung

#### Introduction

To adapt to the heavy work pressure and be physically capable of performing nursing care activities, nurses must be physically fit. It is especially important that nurses have a good cardiorespiratory endurance. Poor physical fitness may lower the level of vitality and creativity, resulting in a lack of vigor in the entire nursing team. Furthermore, the increase in health problems of nursing staff may increase the turnover rate of nurses. This influences the performance of the overall hospital organization and increases the cost of health care. Therefore, enhancing nurses' physical fitness can relatively improve the effectiveness of the nursing profession. As a result, the safety and care quality of patients are maintained as well.

#### Purpose/Methods

By walking, stair climbing, and doing aerobic exercises, the cardiorespiratory endurance of nurses is enhanced. The intervention strategy involves forming a sport team of 33 people. Individually, they set their own sport passports. People who live within 500 meters away from the hospital went to work on foot. When at work, they took the stairs instead of the elevator. They performed a 10-15 minute of aerobic exercises everyday. The intervention period is three months, during which individuals' sport achievements were assessed every week. The effectiveness was assessed using Modified Harvard Step Test (MHST) every three months before and after the intervention.

#### Results

The standard of assessment is based on the cardiorespiratory endurance classification (five levels including poor, marginal, moderate, good, and very good) announced by the Sports Administrations, Ministry of Education. Before the intervention, 66.67% of subjects had a result of above moderate level of cardiorespiratory endurance. After the intervention, 72.76% of subjects were above moderate level. Three months later, the results of effectiveness consistency assessment showed that 78.78% of subjects were above moderate level. Clearly, the intervention strategy is effective; additional 12.11% of subjects' cardiorespiratory endurance improved and reached above the

moderate level. In addition, another result of effectiveness was the percentage reduction of subjects with insufficient body mass index: from 18.18% to 9.09% (9.09% improvement). The percentage of overweight reduced from 45.45% down to 36.36% (9.09% improvement).

#### **Conclusions**

Walking, stair climbing, and aerobic exercises can be promoted at other medical workplaces. Effective results cannot be seen by doing these activities in a short run. Significant improvement of results can only be seen through continuous implementation of these activities over a long run.

#### Comments

It is very important to improve the healthcare workplace culture of medical units. It is hoped that these activities can continuously be promoted to enhance the quality of health care environment and the health of medical team members.

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### Enhance Nurses Physical Fitness-the effectiveness of softness

#### HO Shiou-Shyan, JEANG Shiow-Rong, LIN Chien-Chiu, KU Yan-Choiu, CHEN Chin-Chin, CHEN Chieh-wen, CHENG Jin-Shiung

#### Introduction

Physical fitness can prevent cardiovascular disease, reduce stress, enhance nurses working tolerance. Softness is an important influence factor of physical fitness; tight muscles cause limited physical activity. The project consists of six wards including 33 nurses. According to fifth grade physical fitness assessment, during 2014/6/1 to 2014/6/5, we tested the softness (V-shape sit) and the results showed 57.58% (19/33) were located in level bad and poor. Nurses should have a good physical fitness to maintain patient's safety and caring quality.

#### Purpose/Methods

Purpose:The physical fitness norm is divided into five grades (poor, bad, appropriate, good ,and very good) by Sports Administration. The goal of softness was above grade "appropriate" increased from 42.42% to 63.63%. Methods:We established exercise team, posted fitness girls picture on closet, signed up exercising contract, made exercising passport, developed personal exercise program. Members were encouraged to participate aerobic exercise every Thursday. We also created LINE group "Fitness Mission" to share exercise experience, and provided prize to enhance motivation.

#### Results

The average age of 33 nurses was 36.48 years old, 69.7% required the night shifts. During 2014/12/10 to 2014/12/15, five members were participating seminar before physical fitness test. The five members passed demonstrations to assist physical fitness test. Results showed softness above grade "appropriate" increased from 42.42% to 63.63%, the rate of target completion

was 100%. There were 27 members improved by Self-comparison, 6 members were on the original level.

#### Conclusions

The interventions can effectively enhance the softness of nurses. 6 members were on the original level by Self-comparison. We found some were under abdominal pain, fever, and other illness while testing. One member was busy on studying. We invited the best progress member: Nursing Supervisor Shiow o Jeang to share her experience. We expect members can improve by second test. Exercising passport and aerobic exercise DVD were put on the website (Health promotion for nurses) for easily access by staff.

#### Comments

Logging in exercising passport not only can develop exercise habits but also can examine the status of implementation. Therefore, we can find out the personal shortage of exercise item, and adjust the exercise program to solve the problem effectively. Although improved outcomes were excellence, the exercises need to be perseverant, therefore, we suggest that the nursing department establish an association to promote nurse's physical fitness aggressively.

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#### Let's exercise during working hour

#### CHOI Iksoon, LEE Kiheon, PARK Hyunjoo

#### Introduction

According to the survey of physical activity among health promoting hospital staffs, one of the most common excuses of do not regular exercise was "I'm too busy to exercise" or "I'm exhausted from working all day". As the result of consideration how to enhance physical activity, we found that the simple change, using stairs instead of escalator or elevator during working hour, can make them more activity.

#### Purpose/Methods

For the purpose of motivating staffs to climb stair, we renovated stairwell by exhibiting paintings by employees' children, drawing a landscapes in the wall, and informing benefits of using the stairs. Signboards that lead people into the stairways were hung in front of every stair entrance. In the operating room, we made "the calories track", which is showing how long they walked, and how much calories they burned. Also we performed the "let's exercise during working hours" campaign.

#### Results

About 240 employees promised to take the stairs during their working time; •When I move between less than 3 floors I will take the stairs! •I will never use escalator! •I will walk a stairs after lunch, everyday! To assess how many people keep their promise, we conducted survey, 1 month after they make appointment. The most of them answered that they are keeping a promise and trying to using stairs instead of elevator.

#### Conclusions

After the campaign, we realized that making exercise friendly environment is far more effective than emphasize on health by

thousand words, because employees spend a majority of their day in the workplace. As the saying goes, "many drops make a shower", when people gathered every single steps climbing stairs, they become healthier.

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The relation between the toe muscle strength and the ability to keeping the right posture.

#### TERAOKA Kaori, TERADA Sayaka, KIKUCHI Satomi, AIHARA Chikara, YAMASAKI Hiroki, NEGISHI Kyota

#### Introduction

If you compare your body to a house, your feet would be its base, and they maintain the balance of the house. Because our feet are functioning as the balance supporter, decline of their strength leads to the incorrect posture. Recently many studies disclosed the toe muscle strength reflect the strength of feet and the balancing ability necessary for keeping the posture. By measuring the toe muscle strength, the relation of the toe muscle strength and the posture was disclosed.

#### Purpose/Methods

Twenty-one male and 73 female workers in the TOKYO KENSEI Hospital participated in this research. By using The Toe Pressure Measuring Instrument, values on the toe muscle strength were collected. We analyzed them based on the average. The relation between posture and stiff neck or back pain is also analyzed.

#### Results

We revealed that workers who had forward-bent posture tended to show the weakness of the toe muscle strength. Furthermore the stiff neck was seen in the most of office workers, and a number of care workers were suffering from back pain.

#### Conclusions

Because the strength of the toe muscle is important to maintain the right posture, so it becomes apparent that the weakness of the toe muscle strength causes the stiff neck and back pain. Training for strengthening the toe muscle is crucial to become aware of own posture, and so that our "base" can maintain the stability of the "house".

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The Rehabilitation Effect of Isokinetic Training on Anterior Cruciate Ligament (ACL) Injury

#### LEE Meng-Szu

#### Introduction

Injury to the anterior cruciate ligament (ACL), a structure vital to knee stability, can adversely affect activity, work efficiency and quality of life. These injuries are usually treated by reconstructive surgery. However, successful recovery and rehabilitation depends on proper muscle strength training which has been achieved using isokinetic machines. This study evaluates the rehabilitation effect of isokinetic training on ACL injury.

#### Purpose/Methods

Improvement of patient's muscle strength has traditionally been monitored by following changes in velocity of constriction and lengthening of the extensor and flexor muscles at different angles. This involved considering many variables whose relative importance were not determined and assessment was based on the physician's intuition and experience, which took time to interpret. This study investigated the possibility of using principal component analysis (PCA) of these variables to evaluate the therapeutic effect of isokinetic training on ACL injury.

#### Results

The muscle strength of each patient (totally 73 ACL patients) was evaluated using Kin-Com isokinetic machine for one month isokinetic training. Through the PCA analysis both 60o/s and 180o/s average concentric values (90±45.43 and 67.92±34.59) were found to be significantly less than 60o/s and 180o/s average eccentric values (142±65.52 and 144.04±59.41) (p

#### Conclusions

Statistical evidence shows that the improving effect of muscle strength on ACL injury is significant. We conclude that PCA analysis can be used to quickly analyze all the variables collected by Kin-Com isokinetic machine and evaluate improvement in isokinetic muscle strength over the rehabilitative course.

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Analysis of a medical center employee health-related fitness and Innovation in Health Promotion in 2014 to 2015

#### YI-NEI HSU, HUI-JUN HUANG, CHING-I YEH, YING-HUA Shieh

#### Introduction

According to National Health Interview Survey published by Health Promotion Administration in 2014. It shows that people in Taiwan do not do enough physical activity. Although health professionals obsess well health knowledge, the research shows that health professionals struggle for obesity and other health issues due to heavy workload of nursing. Based on the analysis result of physical fitness test to employees in a medical center, and designed series of health promotion activities.

#### Purpose/Methods

The group recreation activities aim to gather employees who share the same interests and their families to form self-driven clubs and activities. To engage more government resources in health related activities, series of group recreations were conducted, which included rental bikes for publics and cycling, rock climbing activity held by sport center, health meal cooking, lotion DIY, and hiking tour to Taipei city historic sites. The participants were asked to fill up questionnaire afterwards.

#### Results

There were seven group recreation activities held between September and December in 2015 to promote health awareness. The average rate of satisfaction is 91.36%, and participation rate rose from 2.46% to 7.32% (4.86% of increase). There were four new clubs formed with 83 members involved.

#### **Conclusions**

The result of physical fitness analysis targeted to employees between 2014 and 2015 shows that the majority of employees are young adults. The increasing rate of "overweight" out of four tests was highest (5.49%), which shows that the lack of exercise and poor quality of diet. Encouraging people perform physical, self-driven activities and raising the health-awareness through series of group recreation activities are essential to promote the healthy working environment.

#### Comments

Every participant would like to sign up proposed activities again based on the feedback. Some suggest the improvement in terns of time arrangement and duration of activities. The suggested solution is to facilitate the establishment of self-driven communities and conduct more similar activities. It is expected to attract more people and help them to create healthier lifestyle and working environment.

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The strategy of total-solution caremediator training program (TDM & TCM) promotes workplace health and improves the harmonic partnership between healthcare professionals and patients.

#### TSAI Hsiu-Nan, CHIANG Shu-Fen, LAI Chun-Huang, CHEN Shu-Ling, HUANG Chi-Chen

#### Introduction

The improvement of doctor-patient relationship and healthcare dispute resolution could promote workplace health in hospital. As healthcare and malpractice costs continue to rise, there is growing interest in tactics such as early apology, mediation, and arbitration in the medical field. Under the appropriate practice and teamwork training, Alternative dispute resolution (ADR) is a

wonderful strategy of avoiding litigation, decreasing overall cost, and increasing satisfaction among both health professionals and patients. The care-mediator training program provides intrahospital mediator program (TDM & TCM, total-solution dispute management, teamwork care mediation), not only care for patient and family, but also care for medical colleagues.

#### Purpose/Methods

Since 2013, we have established the first care-mediator training team (CMT) in Taiwan, in order to promote the holistic care, communication and mediation for medical disputes and to change organizational culture. Our care-mediator team (TDM & TCM) achieve 94% success rate to avoid litigation. And the satisfaction rates is high (81%) among patients, family and healthcare workers. The organization culture and atmosphere are also improved. The effect of total-solution care-mediator training program (TDM &TCM) in workplace health and relation between healthcare professionals and patients will be surveyed.

#### Results

From Jan. 2015 to Jan. 2016, we have held 10 training workshops and trained more than 300 participants to practice care and mediation program by role play and case study. After the survey among participants, 90.2 % of the respondents agree the TDM & TCM program is helpful to improve the harmonic partnership between healthcare professionals and patients. 91.0 % of the respondents agree the TDM & TCM program is helpful to relive the workplace stress and to promote workplace health. 92.0% of the respondents agree the CMT program is helpful to promote the skills of empathy and communication between healthcare professionals and patients.

#### Conclusions

The participants of the TDM & TCM training program include hospital managers, risk managers, experienced nurses, social workers, patient safety managers, family medicine physicians, psychiatrists, psychologists, legal professionals and volunteers. Under the nationwide executive program by the department of health and welfare, our expert training team provides supportive and advisory aid to promote the establishment of medical care team in hospitals all around Taiwan, In conclusion, the TDM & TCM program provides a better strategy for medical dispute resolution, promoting workplace health and improving the partnership between healthcare professionals and patients.

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Worksite Taichi and Pilates practices help to relieve muscle tightness and build back/abdominal muscle strength

#### JEN Dong-Hui, YEH Chien-Nan, CHEN Yi-Ru, WANG Yu-Ting, PENG Cheau-Jane

#### Introduction

A worksite self-reported questionnaires regarding health promotion in Chimei medical center in 2014 revealed that 62.5%

employees had 'stiff sholder and neck' and 43.6% had 'back sore and pain' problems. Thus, Taichi and Pilates on a base of weekly one-hour practices were arranged for employees with the aim to relieve muscle tightness and build back/abdominal muscle strength.

#### Purpose/Methods

Algometer measured the pressure pain tolerance of upper trunk muscles; the holding time of 60 degree supine position and of face down horizontal position would reflect abdominal and back muscle strength; and the forward reach distance to baseline on bending position would reflect body flexibility. Records from employees who have had attend at least 10 classes and had pre/post pain tolerance tests for Taichi practice, or back muscle/abdominal muscle strength and bending flexibility tests for Pilates practice were analyzed.

#### Results

There were 34 employees met the inclusion criteria for Taichi practice, and 30 for Pilates practice. Pair-t test showed significant improvement on pressure pain tolerance (pre: 4.66 vs. post: 5.77 kgf, p<0.001), abdominal muscle strength (pre: 49.8 vs. post: 105.9 seconds, p<0.001), back muscle strength (pre: 48.6 vs. post:107.6 seconds, p<0.001) as well as bending flexibility (pre: 30.4 vs. post: 33 cm, p<0.05).

#### **Conclusions**

Weekly one-hour Taichi and Pilates practices continued for 12 weeks had the effect of relieving muscle tightness and building back/abdominal muscle strength, as demonstrated in health promotion program of Chimei medical center.

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## Sleep promoting yoga and stress reducing programs for hospital workers

#### LIU I -Li, HUANG Hui-Ting, CHUO Ying Hsiang, LIN Shu-Mei, LIN Su-Ji, TSENG Jui-Mei, YANG An-Ko

#### Introduction

Nearly 30 percent of Taiwan people have insomnia with 17% need to use sleeping pills. Chronic insomnia has been found to be associated with many health risks. Stress might be one of the causes of sleep disturbance. As healthcare professionals in Taiwan are under tremendous stress, sleep problems are common among them. Sleep promoting yoga and stress reducing programs for workers were conducted at Taiwan Adventist Hospital to see if they are effective in reducing work related fatigus.

#### Purpose/Methods

The purpose of these programs is to help our staff learn to relax to get a good sleep and moreover to prevent over fatigue. Thirty six employees were selected based on the results of annual physical check-up. The inclusion criteria were employees with

brain/cardiovascular risk score over 10, or those with three or more indicators of metabolic syndrome, or clinical staff with sleep disturbance. Participants received twenty four sleep yoga classes along with antioxidant diet for eight weeks.

#### Raculte

Thirty six employees including seven male and twenty nine female staff were recruited to the program. The Personal Burnout Scale improved significantly from 46.18 to 37.61 (p<0.05), and Work Related Burnout Scale also decreased from 40.17 to 37.81 but not significantly (p=0.334). The satisfaction survey displayed 53% were satisfied and 47% were very satisfied with this program. The results support that sleep promoting yoga with stress reducing diet is effective in improving working fatigue among hospital workers.

#### Conclusions

Yoga is originated from India and has gained its popularity in the Western world in the recent years. It is not only a physical exercise but also has mental and spiritual components that may be beneficial for sleep disturbance by helping people to relax. We recommend healthcare institutes to integrate sleep yoga and healthy diet into health promotion programs for their employees to reduce workload stress and correct their sleep problems.

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Promotion of the Joint
Implementation of the TrioPrograms: "Healthy Cuisine",
"Aerobic Exercise" and "Curvy
Figure"

#### HSU Shu-Ling, LUO Chang-Ying-Ying, CHEN Yi-Chien, LEE Chun-Sung, HSIAO Hsu-Feng, LEE Min-Chen

#### Introduction

Excessive weight, one of the abnormal indications from the employee health examinations is ranked No. 2 at the Liouying Chi Mei Medical Center. According to the increasing incidence of obesity in relevant literature, the most commonly used control weight is through healthy cuisine and aerobic exercise. The aim promote the trio-programs "Health Cuisine" and "Aerobic Exercise" and "Curvy figure," with the participation numbers of each program was 912, 969 and 695 persons, respectively.The total weight loss is 1,760 kg.

#### Purpose/Methods

The weight-loss goal for our hospital members, their family and visiting patients with BMI  $\geq$ 20 is 1,750 kg (The average weight loss per person is 2.9 kg and above). Measurement methods: (1) the establishment of Healthy Public Policy; (2) the establishment of a healthy weight loss environment; (3) the development of personal health weight loss tips; (4) the orientation adjustment of Health Services; and (5) the intensification of community activities.

#### Results

The aim of this project is to promote the trio-programs "Health Cuisine", "Aerobic Exercise" and "Curvy figure." With the participation numbers of each program, was 912, 969 and 695 persons, respectively; the total weight loss is 1,760 kg. The sample size of the enrollment of hospital in-house staffs is 242 people the total weight loss of 468.9 kg, also the enrollment of patients the total weight loss of 1291.1 kg.

#### Conclusions

Our hospital in-house staffs and enrollment of patients with an average weight loss of 1.94 kg and 2.85 kg per person. Innovation has found to be our important mission after probing deeply into the organizing team of Liouying Chi Mei Medical Center. Our concentration and inward care to employees and the public is the key to our innovation. To achieve the effect, healthy cuisine and aerobic exercise are introduced as innovative activities and promoted to hospital employees and the public

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# The relationships among burnout, self-compassion and work context in mental health hospital: a cross-sectional study

#### SUN Hsiao-Ju, LEE Kun-Hua

#### Introduction

Burnout is a prevalent issue and identifying the high risk factors of burnout in workplaces is very important. Literatures indicate that social workers or nurses were identified as high risk population of burnout which is highly associated with depression, anxiety, chronic fatigue syndrome or other morbidities. Staffs with burnout showed less self-concern and experienced more self-criticism and self-demand which will worsen their burnout. However, little studies were to explain the relationships of burnout, self-compassion and the work-context on psychiatric practitioners.

#### Purpose/Methods

This study analyzed the effects of work-context and self-compassion on burnout in a sample of psychiatric staffs. 512 participants were recruited from different workplaces of a mental hospital which include acute, chronic psychiatric wards, nursing homes and long-term care units. 221 participants (43.6% response rate) completed the WHO-five well-being index (WHO-5) and self-compassion scale. 76 responders were female (40.6%). All questionnaires were anonymous and confidential. One-way ANOVA test were to examine the relationships of workcontext, self-compassion and burnout.

#### Results

More than half of the responders worked for nursing home or long-term care. The mean of WHO-5 and self-compassion were 60.69 (S.D = 22.11) and 36.24 (S.D = 7.80) respectively. There was no significant differences of burnout in different work contexts (F7 205=1.84, p>.05), whereas significant differences of self-compassion were found in different work contexts (F7 185=3.90,

p<.05). After Post Hoc test, the staffs work at long-term care units reported the lowest scores of self-compassion, and followed by the nurses.

#### Conclusions

The result that work context-specific and lower self-compassion have roles on burnout was supported by literature. The staffs in long-term care are expected to pay more attention and energy to care chronic severe mental ill patients who commonly present deteriorating physical condition and poor daily-life abilities. This constant demand becomes the endless stress and the main risk factor of burnout of staffs. Stress-reduction intervention and empowerment program should be designed to improve and enhance their well-being about work place.

#### Comments

Health promotion for employees is one of the important dimensions and crucial goals of health promotion hospital. To create a better workplace for healthcare workers should be the top strategy and be integrated into hospital management plan. The effect of workplace health promotion and the staff's wellbeing as well as the workplace stress ought to be reevaluated periodically in order to adjust implementation of health promotion programs aiming to reach better health status of hospital employees.

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## Are You Tired? The Burnout Management Strategies in a Medical Center

#### WU Yi-Chen, CHANG Hui-Mei, LIU Chiu-Shong, YANG Li-Hui, CHO Der-Yang

#### Introduction

According to the survey of "Around Taiwan Health Care Alliance" in 2009, the burnout index of healthcare workers was higher than the average of national labors and the burnout index of nurses was the highest. It was caused by the high tension workplace with regular work shifts and overtime works. Since the lack of medical manpower is a national problem, the maintenance the physical and mental health of existing medical personnel has become a top priority.

#### Purpose/Methods

Four-step burnout management was conducted in a medical center. First, the Copenhagen Burnout Inventory (CBI) was administered to staff during their annual health checkups. Then, the CBI results were feedback to human resource department and unit heads as the basis for manpower adjustments. Third, the staffs with high CBI scores were cared individually to understand the sources of stress. Last, the appropriate environmental and health promotion activities were provided to staffs to release work stress and recover from burnout.

#### Results

4,371 staffs completed the CBI in 2015. The average personal burnout score was 45.86 and the average work-related burnout

score was 41.00. The scores of 682 personnel (15.60%) exceeded the threshold (personal burnout  $\ge$ 70 or work-related burnout  $\ge$ 60). Amongst, only 30 personnel (4.40%) were willing to accept assistance. For those with higher Framingham Risk Score, we compared the score and the workload and calculate the risk of brain/cardiovascular diseases. High risk personnel were referred to occupational medicine clinic.

#### Conclusions

In the hospital setting, there is a moderate percentage of medical personnel experiences personal and work-related burnout. These results are similar to earlier studies. Nevertheless, the four-step burnout management process has shown to be successful in identify burnout cases and subsequent intervention. We will follow up to assess case improvements. This work is crucial to ensuring the physical and mental health of healthcare workers.

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## Establishing and evaluating an emotional distress system at a medical center in Southern Taiwan

### KU Yan-Chiou, JEANG Shiow-Rong, CHEN Hui-Ling, CHENG Jin-Shiung

#### Introduction

Nurses not only need to take care patient's physical problems, but also need to take into account their psychological needs. When emotional distress is included in the 6th vital sign evaluation, nursing staff can rapidly evaluate the emotional change of patients, solve their emotional problems .About construction and implementation of an information system has not been part of the discussion in recent years.

#### Purpose/Methods

The purpose of this study is to explore the completeness and accuracy of data in different columns of the "emotional distress" system. This study used the descriptive statistics research design and the purposive sampling technique to select research samples from eight wards in a medical center in southern Taiwan, which promotes the e-system. Source from the six-month research period from 1 April to 30 September 2011, a total of 35,822 records from 119 nursing staff and 35,510 records were collected for further analysis.

#### Results

The accuracy rate of emotional distress assessment was 74% in the beginning, after ward, the completeness and accuracy rates were 94% and 95% respectively. After using this established system about evaluating patient's emotional distress in the entire hospital, we checked the accuracy and completeness rates every six month for three different times .The results showed both the accuracy and completeness rates were 100%.

#### Conclusions

The research result indicated that introducing an emotional distress system to a medical center may better the completeness

and accuracy of nursing staff's emotional distress evaluation records.

#### Comments

The finding can serve as reference for management and administration personnel in constructing, implementing, and developing relevant systems.

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Effect of a brief mindfulness-based stress reduction program on attention awareness and stress in the workplace

### WU Chu-Ying, HUANG Hui-Ting, CHUO Ying-Hsiang

#### Introduction

Background Numerous studies have determined that a high work stress in the Taiwanese workplace results in low job satisfaction, poor physical and mental health (Kao & Lu 2011). The results of several studies have indicated that the mindfulness-based stress reduction (MBSR) training can mitigate the work stress of healthy people(Bazarko, et al., 2013, Chiesa & Serretti, 2010; Irving ,et al., 2009). No study has verified the effectiveness of using mindfulness training to improve the work stress experienced by employees in the Taiwanese workplace.

#### Purpose/Methods

Purpose This study investigate the effects of brief MBSR intervention on the attention awareness, work stress of employees in the Taiwanese workplace. Method This study adopted a quasi-experimental design to facilitate sample collection. A total of 70 participants were recruited from two incineration plants in Northern Taiwan. The experimental group and control group comprised 38 employees and 32 employees, respectively. Data were collected from November 2013 to January 2014. The experimental group received a 4-week course with 1 hour each weeks by brief MBSR program. During this time, the participants were also required to practice at home for 15 min each day. When the course was completed, the participants were asked to continue applying mindfulness in their daily lives and at work from the fifth to eighth week, Conversely, the control group did not receive any intervention. During the preintervention, post-intervention, and 4-week follow-up of the program, the participants in the two groups were examined using the mindful attention awareness scale (MAAS), 14-item perceived stress scale (PSS).

#### Results

Results The analyzed results indicated that the two groups exhibited no significant differences (p >0.05) in demographic data. For the two groups of participants, generalized estimating equations (GEE) was adopted to analyze the results of the MAAS and PSS. No significant differences were observed between the experimental and control groups directly after the intervention. At the 4-week follow-up, we determined that the employees'

continued mindfulness practice at home and at the workplace. In terms of interaction effect analysis for training time and group, an interaction effect was found significant statistical differences in the scores for the MAAS( $\beta$  = 5.16, p =0.007) and the PSS( $\beta$  = 3.85, p =0.002).

#### **Conclusions**

A continual application of the knowledge acquired from the brief MBSR program in workplaces and in daily life can effectively increase employees' attention awareness and reduce the stress they perceive at work. This result is particularly meaningful for alleviating work stress in Taiwanese workplaces. Consequently, we suggest that the brief MBSR program be popularized in all workplaces to serve as a means of learning self- care are skill for employees to cope with their work stress.

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#### Workplace Stress Related Issue Faced by Medical Administration Employee - a case study in Taiwan Medical Institution

### LIN Chin-Feng, HSU Jiin-Chyr, LIN San-Chi, CHEN Ying-Ru, HSIANG Chih-Yu

#### Introduction

Workplace Stress is considered as one of the most serious occupational safety issues. Too much stress can affect employee performance and even cause severe health problems. Our work-related stress study focuses on two aspects of the issue. First, the difference between stressor frequency and perception faced by different divisions. Second, is the stressor frequency and perception affected by reaction to occupational stress, job satisfaction level and general health reasons?

#### Purpose/Methods

Utilizing SPSS 21.0 to perform statistics analysis and using Pearson's chi-squared test to examine the relationship among variables in demographics with stressor frequency and perception. The study used t-test to detect stressor frequency and perception of workplace stress with reaction to stress, work satisfaction level and general health state. The number of survey retrieved is 47 with 87% return rate.

#### Results

On the work stressor scale, a total of 93 points or higher is considered as high work stressor, our study result averages 97.14 points. The analysis shows the higher the educational background, the higher the stressor frequency and perception of stress. Stressor frequency has a direct correlation with reaction to stress and job satisfaction level too. Reaction to stress, job satisfaction level and general health are all significantly correlated with perception of stress.

#### **Conclusions**

Medical administration employee with higher stressor frequency and perception shows more visible reactions to workplace stress

whether it's mentally, physically or emotionally. Career development and interpersonal relationships are also factors of stress. With timely support and encouragement from supervisor, employees can get a sense of achievement and commitment. Establish a stress quality control circle, stress management classes, create a friendly work-environment, and minimize role conflicts are all steps to reduce and prevent workplace stress.

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## Use of health belief to reduce the nursing workplace stress

#### JHUANG Jia-Ci, CHIANG Shu-Chuan

#### Introduction

Shift work Characteristics, resulting in lifestyle is not normal, you cannot have regular exercise habits, eating high probability of ingestion, and long-term work in the workplace, nurses physiological and psychological under pressure, when healthy abnormal condition, it will directly affect the work efficiency, reduce sensitivity crisis, the impact of quality of care, and increase separation rate . Create a healthy and friendly working environment in which promote healthy behaviors, thereby reducing the work pressure, improve the quality of care.

#### Purpose/Methods

Set "love book club" to provide environment to rest, create a slow living space; staff restaurant to offer a healthy diet designed by a nutritionist recipes, the establishment of fitness centers, provide security and convenient exercise equipment and space; irregular conduct outdoor activities, relieve pressure for a health talks and education programs, to increase their health beliefs develop and enhance health-related knowledge; providing employee psychological consultation pipeline, arrange psychologist for consultation, to reduce the accumulation of stress and emotional release.

#### Results

Research hospital nurses ' workplace satisfaction from 83% to 92%, working pressure index decreased from 72 to 51 points, three years before the separation rate by 32% low to 24% on average.

#### Conclusions

Provide health care as a first line of medical nurses, coupled with the impact of irregular shift work life, often cause psychological and physiological stress load, you cannot establish a healthy image to convince the general public, while losing its social role, the hospital side from the environment, food and health education face begin to establish the correct health beliefs, directly enhance career satisfaction and reduce the work pressure, which increases the quality of care, achieve a win-win situation.

#### Comments

Medical work to establish a friendly environment is the need to spend a lot of the cost of funds, but hospital nurses greatest asset, if the establishment of friendly and healthy working environment, reduce workplace stress caregivers, making healthy and positive image of the tree, not only can improve patients quality of care, better promote universal concept of health, which required hospital operators and nursing team to coordinate efforts, through the ideal working environment, to establish a friendly workplace environment.

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#### "In Harmony with Life" - The Health Promotion Program of Santa Helena's Hospital

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#### Introduction

The Santa Helena Hospital S.A. attends the users of Santa Helena Medical Care, with around 300.000 lives in the ABCD region of São Paulo, Brazil. The Worksite Health Promotion Program - "In Harmony with Life" comes lined up to this mission of well-being and quality of life with the philosophy of "taking care of whom takes care", adding benefits to the 750 employees and reflecting directly on the assistance of the users.

#### Purpose/Methods

"In Harmony with Life" has as objective to improve the quality of lifestyle and health of the employees of Santa Helena Hospital. It was realized a survey of the health profile. According to the motivational state and health, actions were developed: physical education work, nutrition care, clinic of physiotherapy, acupuncture, psychology, guitar classes, soccer and volleyball training and punctual activities. Data collection were realized for evaluation and monitoring of the obtained data, from 2007 to 2015. The data were compared.

#### Results

It was observed a reduction of 39.9% of excessive stress (from 6.54% to 3.93%), 62.6% of depression (from 1.34% to 0.5%) and 42.0% of smoking (from 13.54% to 7.85%). It was noted a reduction of musculoskeletal diseases such as neck pain (from 13.42% to 10.88%), arm and hand pain(from 10.91% to 6.34%). There was a decrease of uncontrolled hypertension of 55.1%. It was observed an improvement in self-rated health. It was observed a reduction of the absences justified by medical certificates.

#### **Conclusions**

It was verified change in the lifestyle for risk factors as stress and smoking. As well as this, it was observed a reduction of depression, musculoskeletal diseases and uncontrolled hypertension. The health promotion program helps to reduce the days off for illness of the employees. The continuity of the

health promotion program "In Harmony with Life" should be priority to reach better results in health prevention and promotion in this population.

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## The Mentality Health Promotion Project for health care workers

#### CHEN Yin-Chen, HUANG Xiao-Jie, LIN Tzu-Yun, WANG Chao-Ling

#### Introduction

Based on statistics of Ministry of Labor of Taiwan, the number of Taiwan employee is 10.967 million nowadays. They have to work about 265 days a year. It infers that working time has occupied most time for employee. In general, hospital plays two roles as a health service provider and a workplace also. Since the loading of medical service is rising up significantly day after day, it has caused kind of negative relationship between doctor and patient. Moreover, this has also brought about more medical arguments. These reasons have resulted in the greater mental pressure and physical fatigue to medical employee. Thus, the problem of employee metal health has become a principal issue regarding workplace safety.

#### Purpose/Methods

According to The Ottawa Charter, we'd like to reach the goal by: develop employee health promotion plan; reinforce the topic of mental health development; improve employee mental health; arranging series of health promotion activities; encourage employee to implement the health promotion life.

#### Results

After interviewing 2473 employees to investigate their mental pressure and physical fatigue, we have found the statistics indicating that the most fatigue indicators are coming from "over-working involvement" and "individual fatigue." Through the employee activities of cleaning-the-beach and health promotion week, we'd like to release employee stress and support environmental protection activity accordingly. After the event, we had 757 participants with 98.37% satisfaction to the event and 95% satisfaction to successfully release their press.

#### Conclusions

We will keep investigating the high-risk group for employees of "over-working involvement" and "individual fatigue", and monitoring/managing the fatigue indicator of shift personnel.

#### Comments

We will invite professionals from mental /sport medicine and nursing to discuss mental health related topics.

#### Contact: LIN Tzu Yun

Kaohsiung Medical University Hospital(KMUH) No.100, Tzyou 1st Road, Kaohsiung, TWN 1000797@ms.kmuh.org.tw To investigate the relation between the vegetarian employee cafeteria and employee obesity in northern Taiwan hospital

### LIU HAO-WEN, CHAO YOU-CHEN, CHEN CHENG-YU

#### Introduction

Obesity and being overweight has become a major health problem and it is closely related to many chronic diseases including diabetes, coronary artery disease, hypertension, and dyslipidemia, which can predict the health of employee. The employee cafeteria supplied vegetarian diet in hospital, and the menu was designed by nutritionists and changed daily. Vegetarian diets have been associated with lower body weight and affect metabolic profile. Preventing obesity/overweight has become key for promoting staff health.

#### Purpose/Methods

In this study, we focused on the relation between employee cafeteria and employee obesity. We use body mass index and waist circumference to evaluate obesity and being overweight. We analyzed utilization of the employee cafeteria from 2012 to 2014 and collected their BMI and WC by annual health check-up. We defined obesity by Taiwan health promotion administration criteria including BMI and WC.

#### Results

The daily amount of employee cafeteria utilization increasing from 192 person/time to 248 person/time in these three years. The percentage of overweight and obese staff (BMI>24) declined from 33% to 30%. The percentage of male waist circumference over 90 cm decreased from 30% to 25%. The percentage of female WC over 80cm remained at 19%.

#### Conclusions

The utilization of the employee cafeteria increased in these three years, and we found the percentage of obese and overweight employees decreasing. The vegetarian employee cafeteria potentially has a positive effect for workplace health. We should encourage more employees to use the vegetarian cafeteria.

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"Vegetarian Dining Group" Let's Be Vegetarian in Hospital

#### MEI-FENG CHU, WAN-CHI CHOU, YI-CHUN CHEN, YU-HU GHANG, JING-HUI WU, HAOUWEN LIU, BIN-HAN HUANG

#### Introduction

Cancer (malignant tumor) is still the prime cause of death in 2014, and the colorectal cancer is in the third place on mortality

among the other kinds. In 2003, American Society for Nutrition had already pointed out that "Well planned vegetarian diet is healthy and nutritious and it brings benefits for the prevention and treatment of disease." Also, WCRF and AICR both proposed that "Increasing the source of plant fiber" is proved to be a persuasive way to reduce the risk of colorectal cancer. To Face the global food crisis and prevent cancer, nutrition council not only diligently propels the vegetarian diet day by day, but proposes a plan "Vegetarian Dining Group" to increase staff's motivation for vegetable diet, and also make an effort to protect our environment.

#### Purpose/Methods

As a health-promoting hospital, Taipei Tzu Chi Hospital had started serving the "The 35-Dollars Tasty Lunch for Staff" in January the 1st, 2011. (According to the "Daily Dietary Reference Intakes" suggested by Ministry of Health and Welfare, ROC, dietitians adjusted the serving to the portions below: A bowel of staple food, a dish of vegetable, a dish of soybean product, two dishes of the stir-fried, and pieces of fruit, totally six dishes and about 660 Kcal per serving.) Further, to raise the dining numbers and times, nutrition council has run the improving plan, "Vegetarian Dining Group", since 2015. The proposal includes: Reorganization of the traffic flow, Reduction of the daily oil consumption to 1/3 every person, the special cuisine once a month, and the "Chief's New Dishes" offered 2 to 4 times a month. (The Dietitians advertises the "Chief's New Dishes" through internal information system, and also at the restaurant.)

#### Results

From January the 1st 2011 to December 31th 2014, "The Tasty Lunch for Staff" had been served 255,021 times (about 4,688 times a month). Moreover, after carrying out a series of activities in the plan of "Vegetarian Dining Group", the regular dining times has risen from 4,689 to 5,277 per month. (11% averagely) In addition to raising staff's dining satisfaction, this plan can also urge our colleagues to eat healthily by the means of chef's new dishes and dietitians' advertising. Furthermore, it also advocates the practice of environment protection for our earth.

#### Conclusions

Generally, the proposal of "Vegetarian Dining Group" is more than a scheme of healthy vegetable diet itself. Besides serving healthier food, we eagerly make vegetarian diet an enjoyable and longing choice for our colleagues, by constantly updated menus, and through product advertising. Consequently, we try to fully fulfill the vegetarian diet in Taipei Tzu Chi Hospital. Also, we firmly believe the constant practice of "Vegetarian Dining Group" is necessary for both the staff's health and the environmental protection to our earth.

#### Comments

We try to fully fulfill the vegetarian diet in Taipei Tzu Chi Hospital. Also, we firmly believe the constant practice of "Vegetarian Dining Group" is necessary for both the staff's health and the environmental protection to our earth.

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The correlation between eating behavior and body mass index in young employees of a local hospital in Taiwan.

#### LIN Ching-Yu, TSAI Jiang-Tzong

#### Introduction

Obesity and its related diseases are the major health problems in developed countries. Eating behavior is one of the main causes of obesity. Establishing simple and useful tools of eating behavior evaluation would be effective in obesity prevention. In this study, we use an online evaluation system provided by the government and investigate the correlation between the eating behavior and the body mass index (BMI) in young employees of a local hospital in Taiwan.

#### Purpose/Methods

Eleven young adults working in a local hospital were recruited. Age, body weight, body height and eating behavior were recorded. The eating behavior was recorded and analysed with an online evaluation system provided by the Health Promotion Administration, Ministry of Health and Welfare, Taiwan. The evaluation system had 12 questions and can be scored from 0 to 36 points and graded for 4 levels after finishing all questions. The Pearson's correlation coefficient between eating behavior score (EBS) and BMI, age and BMI, eating scores and age were calculated by Microsoft Excel.

#### Results

The correlation coefficients between EBS and BMI, age and BMI, EMS and age were -0.52, -0.26 and -0.26. Moderate correlation was found between EBS and BMI.

#### Conclusions

The online eating behavior evaluation could be a simple way to identify the health status in young adults. The eating behaviors had moderate correlation to body mass index. Whether changing the eating behavior could effect the body mass index needs further studies.

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A preliminary study of the selfmanaged weight loss with a workplace health promotion model implemented by a southern hospital

#### CHIU Chien-Chi, HSUEH Jung-Hua

#### Introduction

Obesity is defined by the World Health Organization as one of the 10 most hazardous factors of health, leading to higher risk of diabetes and cardiovascular diseases. Healthy and balanced diets, regular exercises and staying away from obesity can reduce the risk of the diseases. In view that most people spend one-third the time of a day staying in the workplace, a health promotion at the workplace can help the workers maintain better health. This study set up a self-managed weight loss program at the workplace and intervened in the program based on the workplace health promotion model to achieve the weight loss effect.

#### Purpose/Methods

With a single-group pretest and posttest experiment design, a purposive sampling was taken. There were 41 sampled males with waistline over 90cm and females with waistline over 80cm, who are either obese or with metabolic syndrome. The sample data were collected from June thru August 2015. The development of personal health skills and motivation lift involved the strategy of designing exercise and diet programs, introduction of self-managed health, and creating health supporting environment. The effect was evaluated by improved waistlines and body weights.

#### Results

After the study's intervention in the workplace health promotion program, the sampled males and females had their average waistline reduced from 90.58cm (SD±10.28) down to 87.23cm(SD±9.04), making a total of 137.3cm in the waistline reduction, i.e. an average of 3.35cm waistline reduction of each sampled person, where p<0.05 showed a significant variance. On the body weight loss, it was down from averaged 72.56kg (SD±14.93) to 69.49kg (SD±13.89), making a total of 145.3kg in the weight loss, i.e. an average of 3.54kg weight loss of each sampled person, where p < 0.05 showed a significant variance.

#### Conclusions

Through the workplace health promotion model, intervention in the diet and exercise programs, self-managed health and creation of a healthy environment is the key to the success of weight loss, and providing incentives sustained the momentum for the self-managed weight loss efforts. The result showed that the effect of weight loss and waistline reduction was significant. Hopefully, this workplace health model can be promoted throughout the entire hospital, and even spread out to the patients and local communities.

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#### Evaluation of the effectiveness of the weight loss health promotion over 3 years

#### SUN PEI-LEI, CHENG Jin-Shiung

#### Introduction

Health promotion is an important health policy around the world, however, overweight is a serious health issue worldwide. It causes chronic cardiovascular disease, diabetes mellitus, obese and effect physical and mental health. Therefore, weight loss can not only enhance personnel life quality, but also can reduce the occurrence of illness and medical expenses. Thus being a health promotion hospital is always the aim in medical institutions.

#### Purpose/Methods

Hospital promotes employee weight loss program annually. The employee whose BMI was over or equal to 22 in 2013 and 27th, March to 30th, April in 2015 was welcomed to precipitate. The evaluation was done before 31 th, October current year. In order to create a positive health promotion environment, during the event, there were many activities were hold, such as, exercise walking, aerobic exercise twice a week, health slogan competition, health diet lecture, stair climbing competition and money award.

#### Results

There were 128、144、142 employees enrolled from 2013-2015, In 2013 including 100 female (78.1%), 28 male (21.9). The average age was 45.3 years old (24-65). The average weight before and after was 71.6kg/68.8kg (2.8 kg weight loss). The average BMI before and after was 27/26. In 2014, including 109 female (75.7%), and 35 male (24.3%). The average age was 42.4 years old (18-62). The average weight before and after was 72.8/69.6 (3.2 kg weight loss). The average BMI before and after was 27.8/26.6. In 2015 including 88 female (69%), and 40 male (31%). The average age was 42.2years old (20-61). The average weight before and after was 73.1/70.3 (2.8 kg weight loss). The average BMI before and after was 27/26.

#### Conclusions

Making exercise and individual health into the personal lifestyle, and creating a high-quality health promotion ambience are necessary conditions for motivating employee.

#### Comments

To build a healthy lifestyle is including keep normal daily routine, regular exercise, diet control, and weight control. This is the common goal to hospital and employee.

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## Effectiveness of competition-based weight loss for hospital staff weight control

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#### Introduction

According to Taiwan's government, the results of the "National Health Survey 2013" show that 38% of Taiwanese adults have signs of obesity. The WHO notes, when compared to people of normal weight, those who are obese are more likely to develop diabetes, have three times the relative risk of developing metabolic syndrome and dyslipidemia, and two times the risk of developing cancer and high blood pressure. In comparison, after investigation, 51% of our hospital personnel show signs of obesity.

#### Purpose/Methods

To protect the health of medical personnel, KMUH has an annual 3-month weight loss contest. Each month, the hospital provides health seminars and tracking of weight management, as well as awards to motivate staffs to participate. By measuring the participant's weight, before and after the activity, we will be able to understand the effectiveness of weight management when implementing competition-based weight loss for medical practitioners.

#### Results

1. During 2014 and 2015, the number of participants is 578 and 562; after the competition, total weight loss is 783 kg (2014) and 703 kg (2015). 2. On average, before the competition, 58.4% of the personnel are overweight BMI value; after the contest, the value dropped 5.2 percent. 3. When comparing the 2014 and 2015 results, in 239 participants, 55% gained more body weight, 40% maintained the same weight, and 5% of the participants continued to lose weight.

#### Conclusions

1.Competition-based weight loss for obese staffs has an incentive effect, not only to encourage staffs to continue weight loss, but to also allow more staffs to drop from the obese weight range down to the ideal weight. 2.Unfortunately, the effects of an one-year competition are hard to maintain. After the contest, half of the participant's body weight have increased. We recommend that continuous obesity prevention should be the main goal while competition based contests assist in that goal.

#### Comments

Although hospital staff have professional medical knowledge, during a busy work schedule they often overlook maintaining healthy exercise and eating. Through the annual weight loss competition, staffs are reminded to maintain a healthy body with the added effect of relaxing their mind during their spare time.

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#### The Experience of Tungs' Taichung MetroHarbor Hospital in Promoting Healthy Weight Loss

### HUANG Syuan-Huei, YEN Chen-Jung, CHANG Fang-Lun

#### Introduction

Comparing the results of the health examinations which are held in 2013 and 2014, we plan to organize a weight-losing competition. It is aim to make all the employees pay attention to the problem of obesity. At the end, there were 1,487 people participated in the competition and they lost by a total of 3,205.9 kg. We also set a prize for people who don't gain weight for 2 years. Observing their weight curve in 2013 and 2014, it shows the stable stage of decline of their weight.

#### Purpose/Methods

Comparing the results of the health examinations which are held in 2013 and 2014, we plan to organize a weight-losing

competition. It is aim to make all the employees pay attention to the problem of obesity. To enhance the healthy awareness and performances of the employees, we hold the weight-losing competition. Prizes were divided into groups and individuals. There is also a prize for those who don't ever gain weight.

#### Results

In all the competitors, there are 1,231 employees while others are not. In total, 769 participants are with a BMI of  ${\ngeq}4{\rm kg/m^2}$  At the end, all the participants lost by a total of 3,205.9 kg which means that every person lost 2.15kg in average. By observing the weight curve of the top 3 winners who don't ever gain weight, it shows the stable decline of their weight rather than a rapid one in a short time.

#### **Conclusions**

As a result, they competition has enhanced the healthy awareness and performances of the employees and their family. 48% of them are even overweight or having obesity problems. Hoping the idea of keeping fit can help our employees and people to realize the spirit of healthy promoting.

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# A Consequence Survey of The Employees' Health Improvement Program - Losing Weight by 135, Gain a Healthy Life

#### WANG Chih-Ting, LIN Hsiu-Mei, LEE Shu-Chen, HUANG Wei-Hsin

#### Introduction

This research aimed to identify the results of the health improvement program "Losing Weight by 135, Gain a Healthy Life" for the staffs at MMH. The goals of this program were all attendees would lose more than 2kg weights, and 95% of the participants satisfied the consequence. We developed this program according to relevant researches that had highlighted significant correlations between the variables of gender, age, obesity and the conditions due to 3H (hypertension, hyperlipidemia, and hyperglycemia).

#### Purpose/Methods

24 staffs of 178 invitees, who suffered from metabolic syndrome and BMI≥4, agreed to join this 80-day program from July to October In 2015. The health improvement program including the education for appropriate diet intake habits, personal dietitian consultation, supplied 20-day low-calorie lunch, self-health management by body weight and waistline watching, daily aerobic activity of speed walking 10,000 steps, and health improvement campaign. The participants would win the prize in the campaign.

#### Results

We measured that the total body weights decreased 48.5kgw from all participants. They had lost 2.5% of weight on average and decreased 59.3cm of their waistline compared with

previously. General satisfaction toward this program was 95.2%. However, they gave the lowest satisfaction of "an appropriate time management of the activities". The following-up report, which proceeded two months later post the program, indicated that 70% of the attendees had maintained healthy habits after they underwent the program.

#### Conclusions

This program performed significant efforts of losing body weight/waistline and continued healthy habits development. The pre- and post- tests were recommended if the similar program will be proceeding in the future. Furthermore, to invite the former attendee with the best outcome as an idol to improve the will of participation is also recommended.

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## Cause analysis of the factors that result in staff weight loss

#### CHEN Chen-Yin, SU Pei-Hung, HUANG Xiao-Jie, LIN Tzu-Yun, CHEN Hui-Chen, HSU Chia-Wen, WANG Chao-Ling

#### Introduction

In Taiwan, according to a 2013 government survey, 38% of adults are considered obese; males account for 45.9%, females account for 33.1%. Our hospital, has more than thirty percent of staffs, with a BMI of over 24, keeping this in line with the findings of the government. As a result, starting from 2014, we began to promote a series of weight loss contest to promote the health of staffs.

#### Purpose/Methods

From 2014 to 2015, a series of staff weight loss contest were held. Competition is categorized as team-based or individual-based, and includes doctors, medical staffs, nurses, and administration groups. Using this activity, the hospital hoped to reduce the ratio of staff obesity, analyze the background of the staffs who successfully lose weight, uncover the reason for that success, and to use the information as a future reference when promoting weight losing activities.

#### Results

1.From 2014 to 2015, A total of 900 participants, there is total weight loss of 1483 kg. 2.There are no significant differences between age, categories (group and individual), and occupation 3.There is a significant difference for the weight loss results before and after the activity 4.Males, have significantly lost more weight in kilograms than females have lost. 5.Staffs with higher BMI values appear to significantly lose more weight in kilograms when compared to others.

#### Conclusions

1.From the results, one can infer that the success of weight loss is not correlated with age and occupation. However, although male participation is lower than female participation, their success in losing weight is higher than females. 2.Many studies

have shown that weight loss through peer encouragement, can enhance the results of losing weight. Surprisingly, there were no significant difference in the resulted weight loss for group-based and individual-based categories.

#### Comments

1.Weight loss intervention definitely has a significant impact on the health of medical staffs. It is recommend that the hospital continue to promote this activity. 2.Future weight loss activities can allow for different types of interventions and encouragement for staffs of different levels of obesity.

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An observation of Reduction in Physical Injury of A&E nurses from Violence through Violence Response Training

#### SHEN CHIA-LEN, LI PET-SHAN, CHANG MENG-LING, CHEN WEI-SYUN, CHENG CHAN-CHIH, HO HSUAN, TSAI YI-FAN, HUANG WAN-LIN

#### Introduction

According to Ministry of Health and Welfare, a total of 591 cases of violence was reported from accident and emergency department (A&E) in 2014. Out of the total incidents, 27% are physical violence. In a district hospital, 3 out of 7 reported violence were physical violence. The high rate of violence (up to 42.9%) had affected both physical and mental health of nurses situating at A&E. The dangerous working environment had contributed to the high stress environment. Through training of emergency response towards violence, it aimed to achieve a reduction of physical injury of the nurses.

#### Purpose/Methods

The project aims to achieve nurses' responsiveness towards violence. A dynamic lesson plan was planned through a collaboration between A&E doctors and nurses, police officers, security guards and administration team. Trainings such as simulation, self-defence, use of shield and police-citizen connection were conducted to reduce physical injury of nurses. Violence response procedure was revised as a reference.

#### Results

Between January to November 2015, 6 trainings on violence response was conducted. Full attendance of 21 nurses was observed for each training. The rate of violence in A&E reduced from 42.9% to 0%, reflecting the positive result of violence response training.

#### Conclusions

Through participating in dynamic lessons, such as training on violence response, cross departments collaboration on prevention of A&E violence and revise of violence response procedure, it can increase ability of A&E nurses in prevention of

violence. The further reduce injury during work, thus a healthier working environment.

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## Risk Factors of Emergency Department Violence to Medical Staffs - a National Study

#### I-LIN Hsu, CHEN-LONG Wu

#### Introduction

In Taiwan, almost everyone is covered in the National Health Insurance System so medical cost is cheap for people. Emergency Departments(ED) are always crowded because of convince and low paid. There are many workplace violence events against medical staffs in ED and we need to prevent them by analysis of risk factors. There was no national study for ED violence before.

#### Purpose/Methods

We hope to analyze the real situations of Taiwan ED violence and find the risk factors. Then we will develop the strategies to decrease the events. This is a retrospective study. We collected the data of ED violence events in Taiwan by questioners in December 2013. The participants reviewed the event they had in recent year. We used the SPSS statistical software (version 17.0) and the risk factors were analyzed by univariate and multivariate analysis.

#### Results

There are 6629 registered medical staffs in ED all the Taiwan and we collected 1433 effective questioners. 279 staffs(19.5%) had experience of ED violence events in recent year and 79.5% had more than one episode. Although 93.6% had ED alarm system, 83.3% had ED violence education post, and 85.4% had ED violence response system. Not only nurses (21.9%) but also doctors (25.5%) and security (24.7%) experienced ED violence. The medical staffs worked at medical center had most experienced (27.2%). Education for medical staffs decreased the chance for events (18.9% vs. 25.0%).

#### Conclusions

The existed ED violence prevention and response system in Taiwan is not enough. The government needs to have more solutions to decrease the incidence of ED violence. But the education for ED violence to medical staffs is the effective way to decrease the events.

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Prevalence of abnormal liver function in a semiconductor workers population of south Taiwan

#### YEH JIH-KUEI, LAI CHUN-HUANG, TSENG WU-PIN, HUANG CHI-CHENG, CHENG MING-FEN, CHEN CHIA-HUI

#### Introduction

High-tech industry is crucial to Taiwan's economic development that the semiconductor industry is newly developed in the late twentieth century. Several studies on the exposure of workers to toxic factors in the semiconductor manufacturing industries have poses occupational health issues exist. Liver function tests were the critical projects in general labor health examination and preventive health care screenings, currently. The aim of this study was to assess the Health examination by liver function tests of semiconductor workers in Taiwan.

#### Purpose/Methods

The study was reviewed and approved by the Institutional Review Board of the Ethics Committee of the Kaohsiung Medical University Hospital, Taiwan. The retrospective analysis of individuals attended annual health examinations on 1464 workers from a semiconductor plant in Taiwan. Analytical data were included gender, age, alanine aminotransferase (AST), alanine aminotransferase (ALT). Liver function abnormality was defined as AST>55 IU/L, ALT >40 IU/L. All analyses were conducted with Statistical software (SPSS 17.0, Inc., Chicago, IL), and P<0.05 was considered significant.

#### Results

We analyzed the records of 1464 workers (mean age, male: 42.32 $\pm$ 8.17years; female: 43.35 $\pm$ 8.05years).There were significantly higher mean values of AST and ALT in male (AST: 29.04 $\pm$ 9.56, ALT: 44.48 $\pm$ 21.11) than female (AST: 24.40 $\pm$ 10.58, ALT: 32.47 $\pm$ 17.35). (P=0.0000, 0.0000) The prevalence of elevated AST (>55 IU/L) at baseline was 11.7% and ALT (> 40 IU/L) was 7.2%. There was higher abnormal proportion of liver function test in male (AST: 114(19.3%), ALT: 60 (10.1%)) than female (AST: 58 (6.7%), ALT: 46 (5.3%)).

#### Conclusions

We conclude that the prevalence of abnormal proportion of liver function test in a semiconductor workers population of south Taiwan, found a higher prevalence of abnormal AST and ALT in male than female. This study suggests that AST and ALT are a potential liver health effect in male workers of the semiconductor industry. As in AST and ALT levels need to be continually monitored to evaluate the potential liver disease of long-term exposure and to protect workers' health.

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The Impact of Team Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS™)

Training Program on Patient Satisfaction and Job Satisfaction for Multidisciplinary Team in a

#### Community Hospital in Southern Taiwan

#### CHOU Shang-Lin, CHOU Ming-Yueh, CHANG Ching-Yi, CHEN Fang-Yi, YUAN Ben-Chih

#### Introduction

Team Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS™) is developed by the Department of Defense (DoD) and the Agency for Healthcare Research and Quality (AHRQ) to integrate teamwork into practice. It is known that a good relationship between stuffs is important to teambuilding and team-work for taking care of patients. The purpose of this study was to evaluate the effectiveness of the application of TeamSTEPPS™ in the emergency department (ED).

#### Purpose/Methods

The training program of TeamSTEPPS™ was performed in the ED of Foo-Yin University Hospital, a community hospital in southern Taiwan. The workshop, standard lectures and simulation-based program was given for all staffs since 2012. Furthermore, Stuffs got together to discuss about resolving rules for patient complaints by TeamSTEPPS™ monthly. Safety Attitudes Questionnaire from Taiwan Joint commission on Hospital Accreditation were used for all ED staffs before and after training program. The feedback from patients was also recorded.

#### Results

Based on the Safety Attitudes Questionnaire, job satisfaction from all stuffs increased from 31.8% to 87.0%. The rate of positive feedback from all patients increased from 2.6% to 83.3%. TeamSTEPPS<sup>™</sup> showed beneficial for stuff job satisfaction and patient satisfaction.

#### **Conclusions**

The Application of TeamSTEPPS™ in ED could improve the Stuff job satisfaction and patient satisfaction. Facing the growing ageing population, further study is needed to confirm the effectiveness of TeamSTEPPS™ in ED.

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## Promote care-mediator model and enhance workplace health in Taiwan's hospitals

### CHIANG Shu-Fen, LAI Chun-Huang, LIN Gao-Tian, TSAI Hsiu-Nan

#### Introduction

In hospital, medical disputes and communication conflicts are two important factors that increase stress within the workplace. In 2013, we built the first alternative-dispute-resolution (ADR) care medicator team in southern Taiwan. The care-mediator team achieves 94% success rate to avoid litigation. The

satisfaction rate is 81% among patients, families, and healthcare workers. In 2015, we promoted the success model to entire country and look forward to creating a friendly healthcare system.

#### Purpose/Methods

Our purpose is to build a nice, safe and less-disputed medical environment to improve quality of care and create a win-win culture between patients and hospitals. Through training workshops and role-playing exercises, people learned how to listen, how to manage risk, how to reasonably report and response, how to care for patients, families and employees, how to manage public relation, and how to strengthen the workplace security.

#### Results

In 2015, we trained more than 300 people in Taiwan. 94.2% of participants satisfied the workshop. Through the survey, 3 months after training, we find 85% agree the numbers of disputes, the severity level, and workplace pressure are all reduced. Over 90% recognize the workshop help them to build team-communication-and-care culture, clarify the dispute, enhance risk sensitivity and improve patient safety and medical quality. The care-and-people-oriented model provides a good alternative dispute handling and promotes a healthy workplace.

#### Conclusions

In the survey, 99% like to adopt the participants-care-and-communication-mediation model to solve the dispute. The model not only cares about patients and their families, but also care for employees. We also find that strong executive support, good organization and training are key successful factors for the model. A healthy working environment, care-and-people-oriented culture, well trained employees and a good model would reduce conflicts, improve doctor-patient relation and create successful future.

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#### Building a Friendly Workplace for Aboriginal Traditional Handicrafts: Using Qataq making as an example

#### TSAI Yu-Te, LIN Chien-Liang, KAO Cheng-Chih, WANG Bing-Chuan

#### Introduction

Qataq, the Paiwanese name of glass beads, is one of the essential cultural treasures in Paiwan tribe. Varied colors and patterns present different meanings and histories. In Sandimen, Pingtung, many workshops provided opportunities to work for indigenous women and promoted local traveling. Craftsmen melt glass rods with Bunsen burner flame (800~1000°¢ and mold into Qataq; they may expose to glare, high temperature, smoke, and stationary position in making process.

#### Purpose/Methods

This study aimed to investigate the risk of occupational injuries in Qataq making, and promote health for the workplace. A

questionnaire survey was conducted in the Dragonfly Atelier workshop, and we interviewed craftsmen there with conditions of work, satisfaction, wearing of protective gear, perceived health problems, burning injuries, symptoms over different systems in past one year, and seeking medical advice. Those results were evaluated by a five-point Likert scale and calculated to score.

#### Results

There were five Paiwan female craftsmen interviewed; two of them didn't wear goggles due to color aberration. They didn't wear masks and gloves because of influence on interaction with customers and restriction of the fingers. Glare and repeat motion resulted in the perceived health problems. Visual and musculoskeletal symptoms accounted for the majority in past one year. The most common sites of burns were hands and neck. All the craftsmen had sought medical advice for above problems.

#### Conclusions

The traditional handicraft making is essential cultural property, but the security and occupational injury have been long ignored. Individual protective planning, education of health promotion, and cooperation with different specialist are proposed. We wish to build a friendly working environment that enables the culture to become sustainable development.

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## Building of the employee health screening system

#### YOO Kwangha, KIM Jeonghwan, CHUNG Hyunwoo, KIM Yoonsook

#### Introduction

The employee' health screening is to determine whether an individual is fit to perform his or her job without risk to himself or others. This study is to establish an efficient system for employee health screening and management.

#### Purpose/Methods

1) Task Force 2) to establish that candidates are able to meet the physical requirements of the job prior to assignment 3) to monitor health status at periodic intervals when the job involves exposure to potential health hazards 4) to establish the conditions under which employees with illnesses, injuries or disabilities are able to continue working

#### Results

1) resetting health screenings item 2) Computerized health examination questionnaire 3) Establish systems to monitor employee health risk factors

#### Conclusions

Many employees want to work in an environment that supports healthy living. Through the System, health manager will support the organization by targeting individuals who are interested in improving their health. For example, a weight-loss support group can encourage employees to become more active or to eat

healthier. Development of health promotion and education programs will help employees learn ways to reduce their risk of illness and disability.

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## Barriers to Friendly Workplace:Narrative Experiences of a New Staff Nurse

#### LI Yen-Yi, CHANG Li-Chen

#### Introduction

Deterioration of the nursing practice environment causes the loss of manpower. Constructing a friendly workplace may prevent nurses from exhaustion and workplace bullying as well as the personnel turnover. However, the nurses who are less experienced undergo more pressure than the senior staff from the practice environment with hostile relationship that is concealed in the daily work. What hostile experiences the less experienced perceived are unclear. It is an important issue worthy of investigation.

#### Purpose/Methods

Our study, based on new staff nurses' perspective, explores the hostility experiences of a new staff nurse in the workplace. A qualitative research design with in-depth interviews was conducted in this study. The study applied quantitative research and in-depth interviews with one nurse with experience less than 2 years to collect information of the hostile workplace which she experienced. The entire interview was recorded. Based on the interview records, we coded and analyzed the verbatim drafts.

#### Results

1.Loss in the working situation: The less experienced are at a loss in the working situation, being changed the work content at will, given inappropriate work, lack of a clear handover and preemployment training, no offering the help from managers.

2.Interpersonally unaccepted: As the less experienced are frustrated, if her managers or senior staff don't offer any help or even ridicule her, she could withdraw from work, and feel low self-worth and even has depression disorder.

#### **Conclusions**

If the above results aren't solved properly, organizational subculture may hazard the employee's mental health. Those results provide reference experiences that should help managers deal with similar cases. Accordingly, our study recommend: 1.in the organizational culture aspect, develop friendly quality and awareness of the bullies for employee by continuing education and practicing process. 2. in the institutional environment aspect, the hospital should formulate a just and independent handling mechanism to deal with hostile or bullying events.

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Effects of Shift Work on Sleep, Mood and Quality of life, and Factors associated with Shift Work Disorder

## BANG Youngrong, JEON Hongjun, YOON Inyoung, SOHN Changho, LEE Kiheon, PARK Hyunjoo, CHOI Iksoon

#### Introduction

Shift work is associated with unwanted consequences of the mental and physical health, and it needs to be decided which factors are involved in the occurrence of the shift work disorder (SWD). The aims of present study was to examine effects of shift work on sleep, mood and quality of life compared to non-shift work, and to find risk and protective factors for SWD in shift workers.

#### Purpose/Methods

Responses were obtained from 1807 workers at an university hospital in Seongnam, Korea, including 957 shift workers and 850 non-shift workers. Self-reported questionnaires about circadian typology, resilience, insomnia, excessive sleepiness, fatigue, depression, anxiety and quality of life were administered. SWD was defined as complaints of insomnia and/or excessive sleepiness related with their shift work schedule.

#### Results

The shift workers showed more eveningness (44.9%vs16%, p<0.001) and had lower resilience(58.27±12.66vs64.53±13.34, p<0.001) than non-shift workers. In addition, shift workers had more severe fatigue(47.36±0.47vs42.04±0.5, p<0.001), slightly lower sleep quality(6.12±0.09vs5.52±0.1, p<0.001) and quality of life(24.06±0.12vs24.94±0.13, p<0.001) compared to non-shift workers. The prevalence of SWD was 42% and logistic regression analyses showed that risk factors associated with SWD were female(OR=3.80,95%Cl=1.06-13.58), spending more days in night work per month(OR=1.11,95%Cl=1.05-1.18) and eveningness chronotype(OR=1.39,95%Cl=1.02-1.91), while resilience (OR=0.98, 95%Cl=0.97-0.99) was a protective factor against SWD.

#### Conclusions

The shift workers had health problems including severe fatigue, depressive and anxious symptom, insomnia and low quality of life. Considering risk and protective factors for SWD found in the present study, efforts to improve adaptation to night work such as light exposure at night and development of personal resilience are needed for decreasing occurrence of SWD.

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# An investigation on the factors influencing the implementation of health promotion behaviors in hospital nursing staff

### LAI Hsueh-Chen, HUANG Hui-Fang, LAI Chun-Huang, LIN Gau-Tyan

#### Introduction

Nursing staff is the most important human resources in the hospital. The health of nursing staff is closely related to the productivity of the hospital. Under the growing interests in health promotion, the nursing staff naturally became the main promoters of health promotion and act as models for the population on healthy behaviors. To act as a successful advocate of health, nursing staff have to lead by example to pursue healthy behaviors and implement health promotion knowledge and attitude.

#### Purpose/Methods

The key factors affecting the nursing staff's awareness on workplace environment, health promotion knowledge, health promotion attitude and behaviors of the sample institution were investigated. The study format was a "cross-sectional study", using a structured questionnaire and purposive sampling to conduct an "anonymous" survey on nursing staff members who had passed the trial period and were employed at least 3 months. 511 effective samples were collected for reliability and factor analysis.

#### Results

Analysis on construct reliability and validity showed that aside from the omitted items from the three dimensions, the remaining items matched the Cronbach's  $\alpha$  value (>0.7) of construct. Our results are also in line with the norms for factor loading and collinearity (>0.4); explained variance 52.740%~84.172%, eigenvalues (>1), KMO and Bartlett values (>0.6), P value (<0.05), and approximate chi-square value.

#### Conclusions

We conducted construct reliability and validity analysis on the proposed dimensions for assessment and understanding of the sample institution's nursing staff's attitudes toward "factors influencing health promotion behaviors", whether they could accept the contents and set targets of "factors influencing health promotion behaviors". Our results provided the sample institution with an assessment model for evaluating "health promotion behaviors".

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The Effectiveness of Workplace
Health Promotion – From the
Experience of a Hospital in Northern
Taiwan

### CHEN Mei-Yu, CHENG Ping-Yuan, WANG Wen-Yen

#### Introduction

With the current advances in the society, the importance of effective and accurate medical services to patients is increasingly recognized. Consequently, health practitioners experience increased work-related stress in high-pressure work environments, and become susceptible to various physical or psychological conditions. Therefore, the primary objective of workplace health promotion is to enhance the physical and psychological well-being of workers.

#### Purpose/Methods

Psychological health: Provided psychological counseling, health promoting seminar, and administration of mood questionnaire. Physical health: Provided sports classes and meal options such as low-calorie diets, and high-fiber meals. Mental well-being: Establishment of clubs, organized recreational activities, and encouraged social interaction between staff.

#### Recult

In 2015, our hospital coordinated on average 2 to 3 health promotion events each month (active and inactive forms). The average staff participation rate was 85%, and the average satisfaction rate was 71%. Among the events, the staff rated movies viewing, karaoke, and other mental well-being activities as most effective for stress relief, which received a satisfaction rating of 85%.

#### **Conclusions**

Medical practitioners work shift schedules to provide 24-hour health care services. In this study, different forms of health promotion activities were designed and coordinated at various times to meet the rotation schedule of the staff. 85% of the workers in the hospital know about the health promotion policy and events in the hospital.

#### Comments

Holistic health has been the core of HC quality promotion by the Taiwanese Government. However, there are limited funding available for public institutes and the laws and regulations impose many restrictions. To improve the variety and performances of workplace HP activities, public facilities rely on increased funding and relaxed government regulations.

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## The influence of club participation in occupational health promotion

#### CHEN Mei-Ling, CHEN Cheng-Hsien

#### Introduction

Normally most people spend 8 hours a day in the workplace, especially medical personnel with shift work in the hospital. In order to provide fine health care quality, health care staff usually requires highly stress resistance and responsibility compared with other occupations. To build up free 24- hour operative club

system for occupational health promotion effectively helps the staff relieve the stress during the spare time and also brings healthy body, mind and spirit.

#### Purpose/Methods

Occupational health promotion is not just existed for healthcare staff only, but also the whole crew in hospital. We randomly surveyed 100 staves. There are devices such as snack stand, pressure relieving area, internet service, staff lounge, shower room, and social hall in the survey for the staff to choose from which can help stress relieving and mind pleasing?

#### Results

In the survey, we acquired the results of 44 votes for snack stand, 31 votes for stress relieving area, 14 votes for staff lounge, 14 votes for staff lounge, 7 votes for shower room, and 3 votes for internet service. They all approve that those devices can actually help stress relieving and mind pleasing.

#### **Conclusions**

Above the concept of free 24- hour operative club system, the most popular is the snack stand. It will be really such a relief to have some snacks and little chat with colleagues during the spare time. In addition, the pressure relieving area is also widely expected. The staff will be able relieve the pressure through relaxing body massage. That will definitely make a great energy recharger both in physical and mental way.

#### Comments

Health promotion is currently one of the major goals of world health policy. Our hospital devotes to creating a nice and healthy city. The hospital should also help employees relieve the stress for them to provide better health service quality.

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#### Promoting Workplace Health -Routine Screening for Employees with Viral Hepatitis

### CHEN Li-O, LO Yu-Tai, LEE Hsin-Yi, YANG Yi-Hua, LIOU Wen-Chin

#### Introduction

Liver cancer has remained the leading cause of death for years in Taiwan that claims 8000 lives each year. To reduce death from liver cancer, it is crucial to discover it early since the symptoms don't appear until its later fatal stages. Chronic viral hepatitis accounts for 80% of the risk factors for liver cancer. 11% of our hostital's staff are infected with chronic viral hepatitis. We implemented "My Dear Liver" project to actively follow-up the high-risk employees.

#### **Purpose/Methods**

We devoted to workplace health by promoting routine screenings on for the staff. We discovered 64 employees with chronic hepatitis B or C and implemented "My Dear Liver" project on them: i. Medical professionals emphasized the importance of regular screenings and tracked their semi-annual screenings. ii.

Field doctors took turns to give health education guidance every two months. iii. Arranged information sessions, invited physicians to increase awareness of viral hepatitis, share daily liver care tips, and enourage regular liver tests.

#### Results

i. Health check-up showed that 64 out of 557 employees were infected with hepatitis B and C. ii. Issued 64 questionnaires: a. 14.06% "Not Willing to Recheck"; b. 9.37% "Self- Recheck"; c. 76.56% agreed to participate in "My Dear Liver" and were willing to have Liver Function Test, AFP test, and Abdominal Ultrasound Test every 6 months. iii. A total of 5 group sessions that gave health education guidance to 50 employees. iv. Arranged 6 inservice education with HCC related topics.

#### Conclusions

After the program, all the staff reported positive feebacks. We realized more than 70% staff didn't understand the importance of routine check-ups prior to this program. Through this program we ensured 85% of the viral hepatitis carriers to continue to receive trackings. For the remaining 14%, we will figure out the the reasons and customize an improved program for them. Our hospital will keep arranging medical treatments or health education for our staff to promote health at the workplace .

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# Using a Learning Group to Model a Friendly Work Place Setting: The Observation and Analysis from a Qualitative Research Group

#### LI Dai Ni, CHANG Li Chen

#### Introduction

In Taiwan, the Hospital Accreditation System keeps medical working staff busy. If a regional hospital plans to seek accreditation as a Medical Center, the evaluation of their research and publishing capacity is required. Therefore, a Task-Based Learning Group (TBLG) is established to cultivate and grow the staff's research base. The mission of a learning group is to build interest and support academic efforts while simultaneously building a strong, positive work place environment.

#### Purpose/Methods

This study utilizes a qualitative research group which belongs to one of the regional hospitals in Taiwan. The study analyzes a TBLG's operation, while examining the groups secondary function of being a Work Place Support Group. The TBLG started in 2010 with two eight week sections offered each of year. This study uses qualitative, participant observation based research. The researchers also participate in class, observe the interaction of members, record the group development, and engage in self-reflection throughout the study.

#### Results

1. Format—Semi-Structured Group: Members include physicians,nurses,medical technicians, social workers, chaplains,administration staff, etc. The door is open for everyone

who desires to participate. 2. Environment: Friendly, Open Learning Free expression and questions are welcome in class. The focus is encouragement instead of criticism in this group. 3. Content: Focused on Light and Life Students are encouraged to understand the way to give and promote care and to implement these in work and research.

#### Conclusions

The study found that the Learning Group not only improves members' research capacities, but also excites and initiates members to care for each other through the study process. The group facilitates research required in the accreditation process as well building positive relationships. Through observation and participation, researchers found a Task-Based Group grounded in affection and care created undeniable confidence in facing a tough mission. This small support group can be the basis of a healthy workplace.

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#### The VA New York Harbor 17 N Unit's Employee Influenza Vaccination Program

#### KAPLAN Linda, HERZOG Jacob

#### Introduction

Many health care facilities have made the flu vaccine mandatory for all healthcare workers; if they do not take the flu vaccine they must wear a surgical mask. VA NYHHS has a voluntary program.

#### Purpose/Methods

Staff on the 17 N unit was educated on the importance of taking the vaccine, possible side effects, and also on contraindications for taking the vaccine. The Centers for Disease Control and prevention (CDC) and Association for Infection Control Professionals (APIC) recommend the vaccination of Healthcare workers to limit the spread of Influenza and promote safety to their patients and colleagues. The 17 North inpatient mental health unit at the VA New York Harbor Healthcare System has made great strides in educating and encouraging all eligible employees on this unit to be vaccinated against influenza (flu) for the 2014-15 and for the 2015-16 season. The "Flu Champion" for the unit is Jacob Herzog, RN for both years.

#### Results

17 North had a total of 34 employees for FY '14, and 36 for FY '15. For FY '14 out of a total of 34 employees, 27 employees have received the flu vaccination from either employee health (PODS), a colleague or from their private physician. This results in a 85 % compliance rate for FY '14. Employees, who refused the flu vaccine, resulted in a 15% non-compliance rate for FY "14. FY '15 rates are pending at present, but look to surpass the FY '14 rate for vaccinated staff.

#### **Conclusions**

A stronger flu vaccination at the VA NYHHS would help to increase compliance of all staff to 100%; this would protect both employees and staff from the health care risks of getting the flu.

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## Exploring setting HPHs to improve staff's well-being perceived

#### LEE Chen-Lin, LIN Ming-Nan

#### Introduction

Recently, staff's job stress is the general question and lead to high turnover rate is an emerging problem in Taiwan's hospitals. Occupational stress to become increasingly important among health care personnel. There are plenty of evidences showed that employees' mental health as the critical factors for building a successful hospital Job performance improvement and reduce absenteeism, labor turnover, and occupational hazard. Little attention has been given to the point that increase employees well-being perceived to be contributive to improving the job stress. As result of the study to understand that the employee's perceive and awareness, furthermore to inspire personal motivation who want promote health promotion.

#### Purpose/Methods

We should notice that the stress may come from personal or workplace factors. In this study we investigated the setting HPHs to improve staff's well-being perceived and workplace environment. The psychological well-being survey using general health questionnaire (GHQ-12) and assessed with five-point Likert scale. The GHQ-12 questionnaire assessed the status of the staff mental health over the past few weeks.

#### Results

Approximately 72 % of participants were female and 56 % aged between 25 and 40 years. Statistical analysis results showed that the GHQ-12 questionnaire of the feeling unhappy and depression, loss of sleep over worry and losing confidence gain high scores indicate (mean score= 3.78, 3.98 and 3.89, respectively). This reflects individual's worse mental health perceived. Next, confirmatory factor analysis and path coefficient are conducted on the research construct by employing AMOS 12. The results showed that setting of HPHs positively influenced the staff's perceived psychological well-being (y= 0.48,  $\rho\!<\!0.01$ ).

#### Conclusions

Empirical results from the study proved our understanding of the relationships between setting of HPHs and well-being perceived. The results showed that the health promotion activities offered valuable contribution for developing comprehensive strategies to improve staff's well-being perceived. The well planned strategies including team work cohesion, improved workplace safety, creating working conditions through work (re)design approaches to reducing workload.

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## Implementing the sharing of health promotion behaviors in HPH nursing staff

#### LAI Hsueh-Chen

#### Introduction

Taiwan started promoting "Health-Promoting Hospital" in 2001, making hospital organizations healthier and encouraging employees to implement healthy lifestyles and behaviors, thereby improving quality of medical care. As a member of the WHO-HPH International Network, our hospital continues to integrate the concepts and strategies of Health Promoting Hospitals, including building supportive health environments such as healthy diets and tobacco hazard prevention, strengthening the health promotion awareness of the nursing staff, and implementing health promotion concepts into good healthy behaviors.

#### Purpose/Methods

We investigated the view of the hospital's nursing staff on workplace environment, health promotion knowledge, attitude and behaviors. The "study" was a "cross-sectional" design and used a structured questionnaire as the main tool of assessment. An "anonymous" survey was carried out on nursing staff who had been employed by the hospital for more than 3 months. The survey was scored with Likert scale with 270 effective samples. The mean value was used to describe the average value of each variable.

#### Results

1. Mean score of the daily workplace conditions is 2.17. 2. Mean score of the workplace environment is 3.68. 3. Mean score of the occupational safety of the workplace environment is 3.26. 4. Mean score of the health promotion knowledge is 3.99. 5. Mean score of health promotion attitude is 3.95. 6. Mean score of health promotion behavior is 3.98.

#### Conclusions

We conducted an "evidence-based management" study to investigate the current situation on the knowledge and attitude of "health promotion behaviors" of hospital nursing staff. Our study found that the total sums of all evaluated dimensions of all study samples, or the mean value of a single dimension were between 2.17 and 3.99, indicating that the study samples incline to "agree" with "health promotion behaviors" and attitudes; therefore, it is possible to create a high quality health-promoting hospital.

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## Session P2.2: Effect of Built Environment on health and wellbeing

#### Construction of Barrier-Free Environment for Blood Draw - Moving Castle

#### TU Chi-Chao, LIN Yu-Wen, WU Meng-Ting, WU Tung-Huan, LEE Pei-Ning, LEE Yu-Hsien, WANG Wen-Yen

#### Introduction

The waiting time and the seating arrangement at the blood draw counter are the elements that received most patient complaints. A new blood collection counter was installed for elderly adults and people with disabilities to create a barrier-free and disabled-friendly environment. It helped shorten the waiting time for blood draw by 4 minutes, and the service satisfaction level increased from 90.57% to 95.98%.

#### Purpose/Methods

A powered device was installed to build a blood draw counter that can move upward, downward, front and back. Elderly adults and disabled people are not required to take a number card to wait in line, they are prioritized to receive blood draw at the elevating blood draw counter. People in wheelchairs can access the counter seated in their wheelchairs without the previous inconvenience of having to move into the blood draw counter.

#### Results

The blood draw counter increased from 4 seats to 5. Regarding the average waiting time for blood draw, the target (<10 minutes) achievement rate before the new installation was 46.68%, and was 67.20% after improvement. The average waiting time before the improvement was 16′51″ and decreased to 10′50″ after the improvement. In 2013, customer satisfaction (sum of scores for extremely satisfied, very satisfied, and satisfied) was rated 90.57%, and was 95.98% after the improvement, showing an increase by 5.41%.

#### Conclusions

Procedurally: before the improvement, the daily number of blood draw at peak hour was 49, and was 41 after the improvement. Customer: patient complaints were reduced from 4 cases to 2 cases. Improvements to the procedure and customer experience helped reduce the waiting time for blood draw, enhanced patient safety, reduced customer complaint, and increased customer satisfaction.

#### Comments

The new installation was safe and convenient, and was designed to meet the needs of people with various disabilities and elderly people. Before the new installation, the satisfaction level of people aged 60 years or older was 97.98% (3/148), and it increased to 99.0% (1/101) after the new installation. The increased level of satisfaction reported by the elderly customers indicates that the elderly people are pleased with the barrier-free and disabled-friendly environment provided by this hospital

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### Patient opinions of hospital environments

#### NOORLIND BRAGE Helle, METZEI Kristina, NORBERG SJÖSVÄRD Maria, EKEBERG Birgitta, HESLYK WIJK Helle, SANDBERG Erica

#### Introduction

Research has shown that positive distraction and attraction in hospital environments enhance well-being and recovery among patients. When treated in beautiful rooms patients rate the skills of the doctor and other staff higher then when treated in a less attractive room. Also patient satisfaction, ratings of quality of care, cleaning and food as well as hospital services in general, has higher rankings when patients are treated in attractive rooms. The environment also has impact on the staff and visitors.

#### Purpose/Methods

This is a pilot study conducted at five different wards in Sweden. All 15 patients had chronic diseases. Our intention was to set focus on factors that matters for patients in Swedish hospitals. We used both fixed and open-ended questions about the hospital environment in different settings. The intention was also to inspire staff and management to environmental improvements. The results will be spread at the Swedish HPH-network website for information and to encourage further work.

#### Results

There were no objections to participate in the pilot study, neither from patients nor management. All 15 patients rated the staff to have the most positive impact on their well-being. Also the feeling of secureness and welcoming was experienced very high. A place for retreat, attractiveness in the environment or beautiful views from the patient room was rarely at hand and 8 out of the 15 patients stated that the environment did not contribute to their well-being.

#### **Conclusions**

Patients are aware and reflective over the surrounding hospital environment and they are interested in contributing to improvements. Patients and staff seem to have somewhat different reflections and understanding of factors that might improve patient health and well-being, even though both sides are interested in the topic. The attributes of attractiveness and positive distraction, like motives in art and views of nature, are factors that ought to be more discussed. Patient involvement in these questions should to be improved.

#### Comments

Even though this was a small pilot study the results point at engagement and interest in the field of health promotion in hospital environments. The study was made possible by grants from the Swedish HPH-network and by work in the Swedish working group for health promoting hospital environments.

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Unit for health analysis Gasverksgränd 2, SE 581 85 Linköping, SWE helle.noorlind.brage@regionostergotland.se The association of health-promoting hospital (HPH) status, stress adaptation resource in workplace, and the level of stress in healthcare staff

#### CHIOU Shu-Ti, CHANG Wen-Chiung

#### Introduction

The level of stress plays a critical role in determining the health and well-being of healthcare workers. The Taiwan Health Promoting Hospitals (HPH) network was launched in 2006 and have been nationally promoted. Health promotion for staff is one important part of the HPH initiative. However, the empirical evidence about the effect of HPH on advancing stress adaptation resource in workplace and on the level of stress among healthcare staff is still scarce.

#### Purpose/Methods

To examine the relationships between HPH status, stress adaptation resource, and stress level among healthcare staff, we analyzed a nationally representative survey data of 53739 healthcare workers from 71 hospitals across Taiwan. The HPH status was categorized as non-HPHs, newly approved HPHs, and consistent HPHs. The levels of stress and stress adaptation resource were measured by subjective perception of and self-reported by healthcare workers. Multinomial logistic regression was performed to analyze the association of the studied variables.

#### Results

Comparing with the non-HPHs, both newly approved HPHs and consistent HPHs tended to have higher levels of stress adaptation resource (odds ratios ranged from 1.17 to 1.52). The model on stress level indicated that the groups with moderate and high stress adaptation resource had 12% to 46% lower risk of middle and high levels of stress than the group with low level of resource. After adjustment for resource level, the association between HPH status and stress level was not significant.

#### Conclusions

Our findings indicated that joining the HPH network was associated with higher stress adaptation resource level for staff, and better resource level in healthcare facilities might help mitigate the level of stress among staff. The findings implied the beneficial effect of participating in the HPH network on improving health of healthcare workers through enriching the supportive resource in working environment.

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## Session P2.3: Establishing a health promoting environment

Improving the Fire Crisis
Management and its Disaster
Response with HFMEA - An Example
of A Health Promopting Hospital in
Taiwan

#### SHEN Chun-Wei, LIN Yen-Chun, FANG Yong-Yuan, CHENG Tsun-Jen, TSAI\* Tien-Sheng

#### Introduction

In hospital, Many staff on duty and many people access, some disadvantaged groups evacuation difficulties, coupled with the complex surgery. if there is no comprehensive hospital emergency mechanism if fire occurs, there will be more damage. It is very important, to view hospital fire resilience and potential risk by systematic analysis, to carry out improvements, to enhance patient safety, and to create a friendly healthcare environment.

#### Purpose/Methods

In this study, we use Healthcare Failure Model and Effects Analysis (HFMEA), fire Crisis prevention project was improved through 4 phases which were Mitigation, Preparedness, Response, and Recovery. We try to archive two goals as follow:

1. To investigate the fire alarm system combines action newsletter system applications for medical safety environmental 2. The hospital plans to target fire crisis management and emergency response capacity of the system is the priority factor risk factor (Risk Priority Number, RPN) after improving by 50%.

#### Results

1. After improvement, "Mitigation", "Preparedness", "Response" and "Recovery" the main system flow RPN fell 66.30%, 54.73%, 58.13% and 50.83%. 59.98% decline in the overall risk to achieve the set goals. 2. Participate in 2013&2015 Friendly Building selection hold by Architecture and Building Research Institute, Ministry of the Interior and won the Distinguished Achievement Award. 3. In 2015 Fire Crisis prevention project selection hold by Kaohsiung city government and won the Distinguished Achievement Award.

#### Conclusions

1. Participate in 2015 Golden Safety Building selection hold by Kaohsiung city government and won the Distinguished Achievement Award. 2. Awarded a excellent prize for "Safety-Workplace in Hospital" by Health Promotion Administration, Ministry of Health and Welfare in 2015. 3. In this Study, after twelve months of intervention and to improve cross inside and outside units involved. in addition to review and improve the hospital's fire-fighting tolerance, we can establish better safety culture and risk assessment model.

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#### Caring for the weak: Recommendations for the long-term care plan

#### **HUANG Shu-Li**

#### Introduction

In 2008, the WHO estimated that long-term care will be required for 8-10 years. The Ministry of Health and Welfare found that changes in family structure had increased burden on primary caregivers, with 40% experiencing financial pressure. As of 2011, hospitals have collaborated with the Department of Health in promoting the 10-year Long-term Care Plan by providing professional services through healthcare workers' visits. This helps solve the problem of patient care while alleviating caregiver burden.

#### Purpose/Methods

Patients requiring home-based care are referred to appropriate centers after criteria-based evaluation by trained caregivers. During the initial implementation of the Care Plan, the expenses impeded case referrals. To care for disabled individuals and improve accordance with the Health Department's policies, the suggestion to reduce the burden of cases in the Long-term Care Plan was approved in 2012, and hospitals' "Social Service cum Emergency Relief Fund" was utilized to subsidize the expenses of long-term care in 2013.

#### Results

The plan was implemented along with the Health Department's policies in 2011. There were only 33 and 34 patients in 2011 and 2012 respectively. Since 2013, after applications for medical subsidies, the number significantly increased to 109 patients. Presently, over 100 patients annually receive long-term care visits. The average annual medical subsidies are about \$40 000. The hospitals' home-based caregiving teams hope that with professional medical resources, the quality of long-term home-based care can be improved.

#### **Conclusions**

The 10-year Long-term Care Plan is targeted at disabled and dependent individuals, providing both medical and daily care for long durations, using holistic care, aging in place, and a variety of continuous services. It thus ensures that physically and psychologically disabled patients can obtain relevant services. Through medical visits, tailored advice regarding care is given, providing excellent medical service for each case. Reducing some of the burden can effectively alleviate the caregivers' financial burden and increase their satisfaction.

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Establishment of healthy promotion environment in the clinics for an example of the staff or patients exposure to polybrominated diphenyl ethers

#### KAO Cheng-Chih, CHANG Ying-Chieh, CHAO How-Ran, YANG Kuo-Hui, CHEN Li-Hsiang

#### Introduction

This study is designed to investigate PBDEs(Polybrominated diphenl ethers) in air filter dust in the clinics which are belonged to Pingtung Christian Hospital cooperation partner in community. The PBDEs daily intakes of  $\Sigma$ 14PBDEs and BDE-209 are 6.66 and 2.43 ng/day in the medical clinics and 3.06 and 1.87 ng/day in the dental clinics, respectively. The medical staff understands air pollution influenced on human health for the purpose of promotion health in the environment after our introduction.

#### Purpose/Methods

The goal of the present study is to offer the health promotion environment to built friendly environment with reduction of environmental contamination indoors and providing good environment for the workers and patients in the clinics. We detect environmental contamination in the clinics and teach the medical staff how to decrease contamination in the microenvironment. Risks of the patients exposure to PBDEs in the clinics are assessed to improve the health promotion.

#### Results

Our findings are shown that the PBDE pattern in the air conditioning filter dust in the medical and dental clinics are similar to perform that higher brominated PBDE congeners are main contributors among PBDE congeners. The reason is probably due to the release of PBDEs from the surface of decoration, consumer products, and building materials in the clinics. Dust levels of PBDEs in the old medical and dental clinics are elevated compared with those in the new medical and dental clinics.

#### Conclusions

It is neglect that PBDEs are released from the surface of consumer products in the indoor environment especially for the workplaces. It is an important issue for the health promotion how to reduce existence of PBDEs and avoid the adverse effects associated with PBDEs exposure. In future, we can educate the staff in the clinics to recognize that reduction of PBDEs in the indoor dust is necessary to support the health environment for workers and patients.

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## Session P2.4: Health promoting organizational governance & delivery of care

To Promote Equity and Quality
Healthcare Service in Developing
Countries

#### HSU Jiin-Chyr, LIN Chin-Feng, SHIH Ling-Na, LIN San-Chi, CHEN Ying-Ru

#### Introduction

Aligned with the ideology of the WHO, "in the 21st century, health is a shared responsibility, involving equitable access to essential care and collective defense against transnational threats". In order to be a significant contributor to the developing countries and improve healthcare equity and quality, Taiwan International Healthcare Training Center aims to provide and share our medical expertise through healthcare training programs, medical visits, emergency medical aid, and medical support and services.

#### Purpose/Methods

Admission information for the TIHTC is distributed through brochures, website and social networks. From the trainees' statement of purpose, we offer 35 different sponsored Clinical Training Programs to suit a wide variety of needs that lasts for total duration of 1 to 3 months. Additionally, we provide 3 kinds of project programs for duration of 1 to 2 weeks, including: International Acupuncture and Traditional Chinese Medicine, Healthcare Management and Emergency Care Management.

#### Results

The number of trainees keeps increasing per year starting from 2003 with just 1 participant, and jumped to 104 participants from 11 countries in 2008 and reached 133 from 53 countries in 2015. The trainee satisfaction level culminated at 98.12%. Trainees' ability to resolve issues have increased from 2.5 to 4.3 from a scale of 1 to 5. The skills obtained they can use in their daily work and career development has risen from 2.8 to 4.8.

#### Conclusions

As the saying goes, "give a man a fish and you feed him for a day, teach a man to fish and you feed him for a lifetime;" knowledge is the best charity. Since 2002, TIHTC has trained a total of 1110 trainees from 53 countries to date. Going forward, the TIHTC will continue to strive and to play a significant role in professional training, especially when there's lack of personnel, training, equipment and funding in developing countries.

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## The Effectiveness of Referral System in Community Health Station

### CHAN HSIN-LUNG, HUNG TA-CHUAN, SHEN YAN-LING

#### Introduction

Since 2009, the medical center established 59 health stations near by the Tamsui district, New Taipei City. Health station services are provided by volunteers. In 2013, professional health consultation service including nurses, dietitians, pharmacist and cancer screen nurse was added for the people with abnormal measured data. Referrals were given if abnormal results and accompanied patient visiting doctor to decrease patients' anxiety and increase medical adherence.

#### Purpose/Methods

In health stations, we provide alternative services, including general health consultation, healthy diet advice, drug safety advice and cancer screen (breast, cervical, oral and colon cancer). Referrals were given if abnormal results. We help patient make an appointment to appropriate medical department. Our nurse routinely notified patient again before the date by telephone. After clinic, we provide phone tracking service to increase adherence

#### Results

In 2015, there were 146 sessions of health consultations with 3210 participants. 175 people received dietary consultations, 90 people received pharmaceutical consultations, and 89 people received cancer screening. 111 people with outpatient referral. Of the patient's referral, internal medicine had the greatest number followed by the surgical department, pediatrics and gynecology. 54(48.6%) patient had community nurse accompaniment when visiting the hospital. 90.9% of patients got improvement for their problem. Satisfaction rate for this service was 99.2%.

#### **Conclusions**

Community health station and referral system which incorporates nurses, dietitians, pharmacist and cancer screen nurse, give people medical accessibility. Our goal in the future is to diversify the health service, incorporating dementia surveys in hopes to further benefit the community. In this way, the health service is accessible to the elderly, handicap and low social class people. We wish this system can build up a healthy community.

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The experience of cooperating with government, hospital and community resources to promote breast cancer screening

#### KO YUN-CHEN, YU Ernest WEN-RUEY, HO CHIN-YU, LEE JASON JIUNSHIOU, CHEN MING-CHEN

#### Introduction

Taiwan health promotion administration has advocated cancer screening programs (including oral, colon-rectal, cervical and breast cancers) since 2010. However, the breast cancer screening mammography rate was only 36% in Taiwan in 2013. Our hospital made efforts in promoting breast cancer screening mammography in our communities, especially for some high-risk women might not pay attention to the cancer screening policy. We integrated the resources of the government, our hospital, and community resources to advocate this community-based integrated screening.

#### Purpose/Methods

We integrated the resources of Taipei City hospital, Shilin and Beitou District health centers, the heads of subdivisions of two districts, and the volunteers living in the communities. For propagating the activities, district health centers send postcards to the suitable candidates. For administering the activities, the hospital dispatched doctors, case managers, nurses to the community-based cancer screening promotion activities held in the communities. The local volunteers help the health-care professionals find out and encourage the candidates to get their mammograms.

#### Results

From 2013 to 2015, we held 135, 111 and 113 community-based cancer screening promotion activities, respectively. There were 14, 10 and 17 activities involving breast cancer screen promotion. Besides, we added extra breast cancer prevention speeches to our health education speeches toward the public in the lobby of our hospital twice per month. The percentage of mammography via screening promotion activities to all mammography was 10.40% (309/2969), 13.91% (331/2381), 15.32% (392/2558), increased steadily from 2013 to 2015.

#### **Conclusions**

The survival rate of early stage breast cancer is up to 90%. However, the screening mammography rate is still low in Taiwan. After we organized the governmental, hospital and community resources, we encouraged some women living in the communities stepped into our hospital to accept screening mammography. However, the percentage of mammography via screening promotion activities to all mammography was still low despite it was increasing. Hence, we will try our best to promote screening mammography intensely in the future.

#### Comments

Our hospital has used the governmental, hospital and community resources to encourage community residents to have their breast cancer screening.

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A need for a detailed and unified HPH assessment form based on the cases of Boramae and Seoul Metropolitan Hospital

#### LEE Yu Jeong, KIM Kue Sook, CHOO Daniel, LEE Ji Hong, LEE Woo Hyung, LE Lai

#### Introduction

The World Health Organization created Health Promoting Hospitals in 2004 to push towards a medical culture that focuses on the betterment of the physical, mental and behavioral aspects of not only the patients, but also the hospital staff and the community. The efficacy of health education and initiatives by the Seoul Metropolitan Hospital and Boramae Hospital, both Health Promoting Hospitals, were evaluated and analyzed.

#### **Purpose/Methods**

The efficacy of health promotion and initiative programs from Seoul Metropolitan Hospital and Boramae Hospital, Health

Promoting Hospitals located in South Korea, were examined and analyzed.

### Results

Boramae Hospital: Anti-tobacco program for patients and staff, staff cafeteria that provides calorie measurements for nutritional management, medical library in the hospital to provide patients with additional information on their medical condition or diagnoses, etc. Seoul Metropolitan Hospital: anti-tobacco campaign for patients and staff, diet, nutrition and mental health consultation, free physical exams and follow up medical service for staff, health information lecture for the general community, mental health campaigns, etc.

### Conclusions

The two hospitals offered efficient programs that furthered health care for patients, staff and community. However, the lack of a unified assessment form to evaluate HPHs caused different levels of services to be provided. A unified and objective assessment and evaluation form to judge improvement will allow HPHs to offer standard services regardless of location and allow beginning HPHs to offer proficient health initiatives, leading to better overall care for the general patient population and a focus on preventative medicine.

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# Observation of a Korean Public Health Promoting Hospital

# KIM Kue Sook, LEE Woo Hyung, CHOO Daniel, LEE Yu Jeong, LEE Ji Hong, LE Lai

# Introduction

The World Health Organization created Health Promoting Hospitals in 2004 to push towards a medical culture that focuses on the betterment of the physical, mental and behavioral aspects of not only the patients, but also the hospital staff and the community. The efficacy of health education and initiatives by the Seoul Metropolitan Hospital, an HPH, were evaluated and analyzed.

# Purpose/Methods

The Seoul Metropolitan Hospital, a Health Promoting Hospital located in South Korea, was examined in order to analyze the efficacy and the results of its HPH programs, services and efforts in providing holistic care to its community.

# Results

In becoming an HPH, the Seoul Metropolitan Hospital increased the number of services and programs it offered to its patients, staff, and community. Patient programs such as anti-tobacco campaigns and diet, nutrition, and mental health consultation were provided. Staff members received vaccinations, funding for hobbies and physical activities, and free physical exams with follow up medical services. For community members, health information lectures on various subjects, mental health campaigns, and health services for children and adolescents were provided.

# Conclusions

The Seoul Metropolitan Hospital's health campaigns and initiatives for its patients, hospital staff, and surrounding community members improved the efficacy of health care that the institution offers. The integrated and holistic care of the hospital environment allowed for better overall patient care and health promotion for the community that led to prevention of both acute and chronic diseases of patients and staff. The approach hopes to shift medical culture towards an ideology focused upon preventative medicine.

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# Analyzing the Quality of Clinical Pharmacy Services - Experience of A Teaching Hospital in Northern Taiwan

# SHIH Po-Jen, WANG Wen-Yen

# Introduction

Individualized and patient-center clinical pharmacy services help ensure patient receive effective, safe, and adequate pharmacological treatment. Continuous quality improvement to health care service ensures the provision of optimal patient care.

# Purpose/Methods

The medication records of inpatients during 2014 and before June 2015 at a teaching hospital in northern Taiwan were examined, and the descriptive statistics of the monthly clinical reports were analyzed.

# Results

Among the 2953 clinical pharmaceutical care assessments, the majority was for third-line antibiotics (951 cases; 32.2%), followed by exceed safety dosage (605 cases; 20.5%). Among the assessment cases, medication recommendations were provided to 387 (13.1%) cases, among which 302 (78.0%) were accepted by physicians and 81 (20.9%) were rejected for reasons including: patients were shortly discharged and needing continued clinical observation. Third-line antibiotics, instead of first-line or second-line, were prioritized for the patients who were susceptible to drug-resistance and infection.

# **Conclusions**

Consistent review of pharmacological treatment to patients is a vital element for effective clinical pharmacy service assessment. To improve the quality of care to inpatients and patient safety, it is crucial that pharmacists establish a thorough understanding of the patient's examination report and diagnosis, provide drugrelated information, and communicate with clinical physician when providing medication recommendation.

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# Improvement on compliance rates of using Barcode Medication Administration System (BCMA) for a safe medication administration

# **TAN Ting Wan**

# Introduction

Dispensing medications is a frequent task performed by nurses. Researches shown nurses spent 16.9-26.9% of shift time on medication related tasks, errors can occur in any step of the administration procedure. Joint commission in Taiwan promoted nursing informatics and technology (IT) to enhance safe administration of medication and improve patient safety. BCMA (Barcode Medication Administration System) is designed to help safely dispense medications. However, if users do not operate BCMA correctly, technology related errors would defeat the purpose.

# Purpose/Methods

Methods: (71) 1. The BCMA system was implemented in neurosurgical inpatient unit of a hospital in Taiwan. The number of dispensing steps and potential dispensing errors via BCMA system were directly observed during medication administration. 2. By conducting structured interview with 20 nurses using BCMA system in conjunction with observations. Questionnaires were focused on the use of the BCMA and on its difficulty and advantages, the reasons of nurses not compliant to BCMA system correctly.

# Results

The reasons of low compliance were due to: (1) Human errors: Nurses reluctant to carry computer cart from storage. (2) Technical issue: Inadequate computer battery, system errors. (3)Inadequate education: unfamiliarity to BCMA. Post-implementation corrections were made: (1) Computer carts fixed nearby patient room's, with electrical outlet. (2) Weekly audit. (3) Reminder slogan (4) Established medication distribution cases. (5) Simplified operational procedures list. (6) IT team involved to provide technical assistance. Post implementations, the compliance raised up to 95%.

# Conclusions

There were a significant improvements on the compliance of nurses in BCMA system utilisation with lowered errors, the implementation of BCMA for medication administration has improved to accuracy of the medication process for patient safety. To ensure continued program success, the BCMA coordinator must collaborate with pharmacy, nursing and information-technology support staff on a daily basis. BCMA should be continually monitor the efficacy, provide ongoing surveillance and to ensure inpatient medication administrations safety.

# Comments

KeyWords: Barcode-Medication Administration System, Information-technology, Medication-Administrations Safety

# **Contact: TAN Ting Wan**

Mackay memorial hospital of HsinChu branch no.12, alley 43 chienhsi road, Hu kou Hsiang, HsinChu, TWN catherinetwtdudu@gmail.com Which kind of communication is needed during hospitalization? A sample study in the hospital of Vigevano (Italy)

# MARTINO MARIA TERESA, BONA CAROLINA, BECUCCI SIMONA, ABATANGELO LUCA, VARALDA EMILIANO, MARTINO MARIA TERESA

# Introduction

Comunication is one of the most important matter in hospitals. As well as the comunication is correct and effective, so patients can feel better and safe. However we observed that sometimes during post-discharge controls, people ask some questions to clarify their health situation after their hospitalisation. They ask for longness or posology of a pharmacological therapy or about their eventual phisiotherapy needs. So we decided to investigate the communication in the units of the Hospital of Vigevano

# Purpose/Methods

We gave an easy and simple customer satisfaction test of 5 questions to 364 patients aged from 18 to 80 in 7 different units (6 acute care and a rehabilitation one). The 90% were over 60th. The biggest group of 299 people were aided by an operator and the rest (65 patients) self-administered the questionnaire The people who had problems to understand or to read the test were supported by a relative. They were tested at admission and discharge.

# Results

Both groups (the biggest helped by the operator and the self-administered one) gave good scores on each of the 5 items (90% of the scores were 6 or 7). Every item was scored from 1 (negative and not satisfied) to 7 (positive and satisfied). Items consider if patients had clear informations on his health situation at admission and discharge, on clinical tests, on the therapy and if they felt well cared (helped and conforted).

# Conclusions

In consideration of the initial doubt that comunication could not be correct or complete in Hospital units of Vigevano, this study suggested that there is a satisfying way of comunication and patients feel safe and have positive feelings. More positive reactions were found in the rehabilitation unit. Infact, as their permanence in hospital last more than in other units and their experience of recover is really comfortable, perceiving operators efforts to help them, they said to feel at home.

# Comments

This study suggests the important question that if the patients are satisfied about job operators and hospiital organisation, why do they feel so unsafe at home, sometimes after discarge? Probably they become insecure and confused to self-manage new and more indications for their health control, that sometimes can change habits and lifestyle. Besides we have to consider that population is older and older and multi-deseases. Further studies are needed to have more attention in these fields, to increase knownledge on patients needs

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Radiological risk reduction in workers of hemodynamics and operating room in Vigevano Hospital (Italy)

# ABATANGELO LUCA, MARTINO MARIA TERESA, SCHIAVI ANGELO, BONA CAROLINA

### Introduction

Some workers as those of hemodynamics and operating rooms are subjected to three important risks as anesthetic gas, shifts and radiations. The aim of this study was to have a check on the x-rays-coats of these units in the hospital of Vigevano in order to try to reduce at least the radiations risk among the three individuated for these operators

# Purpose/Methods

The occupational doctor with the support of his team checked x-rays coats. They analyzed the coats and eliminated those with visible damages. The only coats accepted were damaged laterally or on the rear side. No coat with anterior crakcs was allowed to be used. A physical doctor supported the workers for back pain because of the weight bearing of the devices. The team also considered that the particular cleaning process of the coats can make damage itself, process by process

# Results

The coats were 30. Mostly of the devices were safe (15) or almost safe (6), with very little and invisible damages, in the back or lateral part. Some criteria were used to analyze the coats, according to a physical expert: -cracks > 1 cm, -damages > 5mm in front side, -holes > 1mm in front side. Some uncertified coats inventored, as law pretend, have been eliminated (5) and 4 were not safe to use for their cracks in front-side.

# Conclusions

The 30% of the devices were eliminated to be renewed. The elimination of the x-rays not-suitable coats allowed the workers wellness. They felt checked for their health safety and they improved their way to be collaborative. Besides, this analysis point up workers weight bearing of the coats that is over 5 Kg. New devices were suggested to be under 3/4 kg at least, because of no lead, that determined in the past the heavy weight

# Comments

Elimination of old and not safe x-rays devices allows a reduction of radiological risk and prevent low back pain and long-term onset of serious deseases (involving thyroid, breast, limphatic system). This is one of the steps to prevent health problems but it must be stressed that operators must put attention in everyday work activities as the correct use of the brilliance intensifiers or the film exposures. Beside checking and monitoring devices must become a job-act part

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The governmen's development strategy of health promotion within improving the quality and safety of healthcare

# KALVACHOVA Milena, STEJSKALOVA Veronika

# Introduction

The Czech Republic has been a member of the International HPH network since 2003. The national HPH network achieved an honorary first worldwide in December 2013, when 3 HPH hospitals were awarded an HPH certificate within the terms of a WHO external audit and another 4 HPH hospitals were awarded a gold HPH certificate in September 2014. Within the terms of these assessment audits, the Czech Republic demonstrated the high level to which HPH standards are met. The Ministry of Health of the Czech Republic (MoH) considers health promotion an essential element of the system of quality management and healthcare safety at hospitals. In 2014 the government and the Chamber of Deputies of the Parliament of the Czech Republic supported implementation of a document titled "Health 2020 -National strategy for protection and promotion of health and prevention of disease" (hereinafter the National Health 2020 strategy"). The chief output of implementation to date is creation of so-called action plans, which specify concrete goals, responsibilities, indicators and performance deadlines for key priority topics of the National Health 2020 Strategy and framework budgets. The MoH considers the basic concept of influencing the current system of provision of healthcare in the Czech Republic towards more emphatic promotion of patient and employee health to be pivotal.

# Purpose/Methods

Within the terms of implementation of the National Health 2020 Strategy the primary goal was to create a long-term and sustainable plan for systematic support of implementation of effective programmes for health promotion, so that these become a key element of the quality of healthcare provided in hospitals, along with clinical effectiveness and patient safety. The existing situation, where activities in the field of health support are only carried out on the basis of motivation by individual healthcare providers and are not coordinated regionally (regions) and nationally and whereas payers for healthcare services are not involved in them and do not utilise their outputs, is out-dated from the aspect of comparison within the EU and from the aspect of worldwide trends. In order to obtain the benefits resulting from implementation of clinical health promotion into the sphere of patient observation, it is necessary to focus on implementation activities directed towards patients and verification of the effectiveness of these activities through subsequent evaluation. An important element implementation of health promotion activities is education and training of medical staff about the programmes and tools for implementation and assessment of health promotion at hospitals, because implementation is effectively doubled if employees are competent and involved. On the basis of the

points set out above and in compliance with the ministry's priorities (putting the patient back into the centre of interest of healthcare), structured educational programmes focusing on educating medical staff about the principles and procedures of health promotion in hospitals according to the program WHO/Health Promoting Hospitals&Health Services (HPH), will be created in cooperation with WHO/HPH experts. Cooperation between the MoH and WHO/HPH will be supported in the form of BCA 2016-2017. The number of HPH hospitals in the CZ should also increase.

### Results

In 2015 the MoH executed an "Action plan for assurance of the quality and safety of provided healthcare services" (hereinafter the "Action Plan"), which also included the issue of health promotion. This Action Plan was approved by the government and the Healthcare Committee of the Chamber of Deputies of the Czech Parliament on 20th August 2015 by resolution No. 671. The Action Plan has set key goals, defined significant outputs and contains specific activities focusing on health promotion. Activities are dealt with by individual projects in relation to the deficiencies discovered in the current system, which were revealed within the terms of the WHO/HPH audit and the OECD study of the quality of healthcare. Measures defined in the Action Plan are realised according to an approved schedule for their performance. The Sub-group called the "National Network of Hospitals promoting health and healthcare services of the Work Group for patient safety and healthcare quality was created before actual realisation and performance of specific measures stipulated in the Action Plan".

# **Conclusions**

The MoH considers integration of health support in the National Health 2020 Strategy one of the methods of increasing the quality and safety of provided healthcare services and increasing patient satisfaction in all aspects. Performance of the measures specified in the Action Plan is monitored and assessed by the management of the MoH and the government. The outputs of the projects have published on the MoH website - portal quality and safety. New regulations, which will originate on the basis of performance of measures given in the Action Plan, will create a transparent legal framework for increasing patient safety and the quality of the provided healthcare and will also ensure a valid, uniform and methodically correct approach.

# Comments

The Ministry of Health of the Czech Republic considers the WHO/Health Promotion Programme and cooperation with WHO/HPH experts through Biennial Collaborative Agreement - the Regional Office for Europe of WHO 2016 - 2017 very necessary.

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# Session P2.5: Creating a Culture of Health through Innovation & Partnership

Changing organisational culture through health promoting activities

# **GUTOVA Lenka, PETR Tomas**

# Introduction

Military University Hospital in Prague is a member of HPH since 2012. Since that time many different activities and projects focused on hospital staff have been organised. Their aim is not only to improve the health of hospital employees, but also to change the organizational culture; to achieve better communication and cooperation between clinics and professionals.

# Purpose/Methods

An expert group for health promoting activities have been established in the hospital. This group is responsible for planning, organizing and evaluating all HPH activities within the hospital. The wide range of activities is offered to reach the largest number of employees. Most activities are organized in teams in order to promote relations and cooperation within the hospital.

### Results

The poster summarizes the key HPH activities focused on hospital staff. It presents variety of group and individual activities and can be an inspiration for the colleagues from other hospitals. It also shows an increasing number of participating staff and continuous growth of expences on HPH activities in the hospital.

# Conclusions

The number of emploeyes involved in HPH activities is growing every year. The positive impact on their health and on the overall atmosphere in the hospital is obvious.

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# Create cultural continuity of health care model can reduce the rate of abnormal liver

# WU Peiling, HSU Yueh-Han

# Introduction

Chronic liver disease and cirrhosis in recent years (2008-2013) second in the ten leading cause of death in the Alishan. In the past by traditional medical care view promote health care effect is ineffective, in recent years, replaced by the aboriginal culture for health care intervention, collected in case of Aboriginal health and medical information, look forward to effectively reduce bad habits, and the establishment of the partnership between

organized and non organized integration, continuing to create supportive environment for health culture.

# Purpose/Methods

Combined theoretical model and cultural health to create innovation and partnerships of continuous health model could enhance health reduce the bad habits. 1. Aboriginal perspectives : Respect and understanding the local culture, the development of culture and creative health education and activities(such as the tribal tour, the traditional exercise and tribal food, et al). 2. Established Partnerships: Integrate resources base on aboriginal views, link the community and organizations, to participate in the establishment and regularly held tribal committee meeting.

### Results

From the transtheoretical model analysis: autonomous motion willingness increased from 4.1% to 38.6% and tribal participation rate was 10.8% up to 23.4% form 2011 to 2014. Through adult over the years of preventive health inspection and analysis, Alishan south Three villages of GOT abnormal rate was 30.2% fell to 8.2%; GPT abnormal was 32.9% fell to 7.7%; Chronic liver disease and cirrhosis was second to eighth between 2011 and 2014, pushing the promote healthy culture can Change the bad habits of have significant results

### Conclusions

Respect for cultural characteristics and traditions to remove the value imposed on tribes and the innovation and partnerships of continuous health model to enhance the culture of health, reduce bad habits, and then reduce liver abnormalities risk.

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# Construction of Integrated Pediatric Care Model in Kaohsiung-Pingtung Area

# KAO Cheng-Chih, LEE Hsin-yi, CHEN Chih-Cheng, TUAN Ten-Ho, CHIN Yow-Yue, SUN Wu, HSIEN Kai-Sheng, CHEN Chih-Jen, KUO Kung-Che

# Introduction

Since 2010, monthly pediatric education sessions are held, providing continuous education to all pediatric medical personnel in Pingtung area, and gradually building up partnerships between the pediatric primary care providers. Referrals are made according to patient needs; Kaohsiung Chang-Kung Memorial Hospital provides Pediatrician Specialists to support Pingtung Christian Hospital (PTCH) to help relieve the shortage of personnel and assist in increasing the capacity of Pingtung county's main pediatric referral hospital, forming a community pediatric care model.

# Purpose/Methods

Pingtung Christian Hospital connect other local hospitls and clinics to form the partnership model in . The medical partnership model cooperated with the medical center,

Kaohsiung Chang-Kung Memorial Hospita and shared edcations and medical resources. We Improved the healthcare quality for Pingtung county that isa serious lack of Pediatrics, and the children could get best healthcare.

# Results

Through this partnership model, during the Chinese New Year holidays in 2013, while most emergency rooms lack pediatric specialists that are on duty, but through the integration, clinic clinicians provided support to the emergency rooms at PTCH; another community hospital was also able to share burden of the emergency room cases, successfully meeting the pediatrics emergency care needs in Pingtung. In 2014, Kaohsiung Chang-Kung Memorial Hospital began supporting PTCH's emergency pediatrics clinic during Chinese New Year; at the same time, community clinics were able to support some of the clinic hours, providing referral services, serving as a successful model of regional pediatric care integration.

# **Conclusions**

Although it a serious question that lack icians at the hospitals in Pingtung, we formed the with clinics and other hospitals -"clinics - Community Hospital - Medical Center" We can integrate the medical resources especially pediatrics, and the partnership support and referral each other. We will provide regional pediatric medical services, and help everyone have HP.

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# A Proposal Using Meal Ordering Sheet Designed to Decrease Serum Phosphorus in Hemodialysis Patients

# HOU Yu-Hsueh, FENG Mei-Chiu, YANG Ya-Zu, WANG Wen-Yen

# Introduction

Phosphate retention and vascular calcification caused by hyperphosphatemia is the primary contributor to cardiovascular disease in end-stage renal disease patients. In this study, a project was developed to establish consistent nursing care for hyperphosphatemia, and provide innovative and diverse education intervention. The proportion of patients with phosphorus level greater than 6.0mg/dl decreased from 24.6% to 18%.

# Purpose/Methods

A cross-disciplinary team was formed to collect data regarding hyperphosphatemia using questionnaires. An education guideline was compiled based on the concept of a menu to provide an interactive education tool between the patients and staff. Other strategies implemented include skill training classes, production of posters about high phosphorus diet, and PowerPoint presentation using pictorial drawings.

# Results

Data from December 2014 of hemodialysis patients with blood phosphorus level greater than 6.0mg/dl for 2 consecutive months were collected. Individualized and diverse nursing

instructions were provided to patients to offer dietary guidance and correct their dietary habit. In June 2015, the number of cases with blood phosphorus level greater than 6.0mg/dl reduced to 23 (15.3%).

# **Conclusions**

The multi-disciplinary team developed a low-phosphorus dietary guide. It used colors to classify high and low-phosphorus foods, and utilized pictorial PowerPoint presentation to educate illiterate patients to help enhance memory. This education intervention was a major contributor ensuring this project reach its short-term goal.

## Comments

The number of foreign nursing aids continues to rise. The language and communication barriers create challenges in fully passing information onto the family. This was the main obstacle in promoting this project and it is an area requiring further attention when developing diverse education tools in the future.

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# Construction of Friendly Treatment Environment and Health Culture in an Acute Psychiatric Ward Using Diverse and Innovative Thinking

# CHANGE Su-Tzu, CHENG Hui-Ju, LI Wei-Chun, WANG Wen-Yen

# Introduction

When a psychiatric ward has an unsafe and uncomfortable environment that is not suitable for the patients, the patients are more likely to display anxiety, fear or violent behavior. The purpose of this study was to construct a friendly treatment environment using diverse and innovative thinking, and help create a new health culture.

# Purpose/Methods

A questionnaire was administered to the inpatients. 53 questionnaires were distributed and 50 were collected, the response rate was 94%. The satisfaction rate was 73.4%. The improvements made include using art to create a caring and healing ambience, providing happy meals to improve mood, decorating the environment with greenery to soothe stress, and simulating scenarios to build team consensus.

# Results

55 questionnaires were distributed, and all were returned. 3 were invalid; the response rate of valid questionnaire was 94.5%. The satisfaction rate for the improved environment was 85.5%. The satisfaction for nursing care was rated the highest (86.9%), followed by team organization, meal plan, and environment arrangement (85.8%).

# Conclusions

Reconstructing the software and hardware of the ward environment through innovative thinking and understanding of

patient's needs can give patients a temporary place for them to rest physically, mentally, spiritually, and socially, allowing them to recharge and restart. Building a good partnership with the patients contributes to the establishment of a positive nurse-patient relationship.

### Comments

It is important that the environment meets the needs of the clients: easy admissions, effective treatment, efficient discharge, cheap rate. Creativity of the nurses, positive support, and diverse environmental stimulation play an important role in increasing the motivation for activity participation and adaptation to the environment of patients.

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The innovative Care-Mediator Team promotes workplace health and changes organizational culture in a Taiwan hospital.

# TSAI Hsiu-Nan, CHIANG Shu-Fen, LAI Chun-Huang

# Introduction

Healthcare dispute and communication conflict could increase workplace stress in hospital. Alternative dispute resolution (ADR) refers to techniques used to resolve conflicts without going to the courtroom. When properly implemented, ADR has an excellent track record of avoiding litigation, decreasing overall cost, and increasing satisfaction among plaintiffs and defendants From Jan. 2013 to Jan. 2016, we have established the first caremediator training team(CMT) in Taiwan, in order to promote the holistic care, communication and mediation for medical disputes and to change organizational culture.

# Purpose/Methods

Under the nationwide executive program by the department of health and welfare, our expert training team provides supportive and advisory aid to promote the establishment of medical care team in hospitals all around Taiwan, We have held 10 training workshops and trained more than 300 participants to practice care and mediation program by role play about a variety of disputes cases, such as labor disputes and mediation, sexual harassment, drug safety, and patient deaths. After fast response meeting for issue analysis, we will hold a care meeting for medical staff and patients. Furthermore we will hold a neutral third-party mediation meeting by trained mediators to promote the communication and resolution for medical disputes.

# Results

After the survey among participants, 91.2% of the respondents agree the CMT program is helpful to promote organizational culture about care and communication. 91.1 % of the respondents agree the CMT program is helpful to establish interdisciplinary care and cooperation. 91.0 % of the respondents agree the CMT program is helpful to relive the workplace stress and to promote workplace health. 95.7 % of the

respondents agree the CMT program is helpful to promote the systemic analysis and safety culture. 89.3 % of the respondents agree the CMT program is helpful to promote healthcare quality.

### Conclusions

Traditionally, the most informal form of ADR is negotiation. This is simply a meeting between the two parties to discuss the conflict and seek to achieve some type of resolution. Besides, mediation is a negotiation that is facilitated by a neutral third-party mediator. ADR has the potential to help reform the medical dispute resolution system, reducing cost and increasing both parties' satisfaction. In conclusion, the CMT program (care-mediator team) provides a better strategy for medical dispute resolution, promoting health for healthcare workers and improving the organization culture.

# Comments

According to the literature, early apology and disclosure programs report 50% to 67% success in avoiding litigation. Mediation boasts 75% to 90% success in avoiding litigation, and 90% satisfaction rates among both plaintiffs and defendants. The participants of the CMT training program include hospital managers, risk managers, experienced nurses, social workers, patient safety managers, family medicine physicians, psychiatrists, psychologists, legal professionals and volunteers.

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# Abdominal massage to resolve constipation in patients with central nervous system diseases

# CHEN Li-Lin, CHEN Mei-Lin, YANG Fei-Ching, WU Chia-Jung, YEN Yen-Chun, WU Li-Chu, CHENG Jin-Shiung

# Introduction

Patients having central nervous system diseases usually suffer from constipation because of the impairment of their sensory, motor, or autonomic nervous system. From the literature, more than 80% of spinal cord injury patients have constipation. In clinical practice, there are many ways to manage constipation; among them, abdominal massage is a simple, easy and non-invasive technique. If the constipation problem of this particular group of patients can be effectively managed, their quality of life should be much improved.

# Purpose/Methods

To evaluate the effectiveness of abdominal massage in the management of constipation in patients with central nervous system diseases. We collected cases from a neurosurgery ward. Patients who were clear consciousness, able to communicate, above 18-year-old and fulfilled the Rome II criteria for constipation were enrolled in this study. For study group, we performed abdominal massage for 15 minutes each day and provided them lifestyle advice relevant to constipation; we only provided lifestyle advice relevant to constipation to control group.

# Results

They were randomly divided into two groups, study group: 13 patients (54%) and control group: 11 patients (46%). Two groups had to fill the Constipation Scoring System (CSS) before the study and one week after the study ( or at discharge ). For study group, the CSS score before and after abdominal massage was  $10.38\pm6.06$  and  $5.08\pm2.22$ , respectively, (p=.004). For control group, the CSS score before and after the study was  $9.36\pm3.91$  and  $6.64\pm3.59$ , respectively (p=.016).

#### Conclusions

This study shows that patients with lifestyle advice relevant to constipation can ameliorate constipation. And with abdominal massage, constipation can be resolved significantly.

### Comments

Providing patients lifestyle advice relevant to constipation and abdominal massage are effective to resolve constipation without adverse effects. We recommend to promote these techniques to patients with central nervous system diseases suffering from constipation in order to improve their quality of life.

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The effectiveness of using external application of fresh Aloe vera for prevention or treatment of infusion phlebitis

# CHEN SUNG-YUN, TSAI YI-FAN, YANG SHIH-CHEN

# Introduction

Infusion phlebitis can cause an inflammatory reaction such as redness, swelling, heat, pain at the injection site. Aloe vera has been known and used for centuries for its beauty and skin care properties. Aloe vera has a long history of use as an anti-inflammatory herbal application for burns or for a variety of conditions in traditional medicine. We want to know that external application of Aloe vera can prevent and treatment of infusion phlebitis?

# Purpose/Methods

Patients who were need to intravenous infusion were recruited from June to November 2015, yielding total of 50 participants. We use self-planting of aloe (zero cost) external application of fresh aloe slice at the site of punctured skin above 3cm area thrice a day. At the same time, we also included 20 participants who suffered from phlebitis. 10 patients were in skin inflamed (excluding injection site) used external application of fresh aloe slice; another 10 patients were used normal saline as control group.

# Results

In the study, we found 50 participants who were need to intravenous infusion were used external application of fresh aloe slice do not have phlebitis occurrence. 10 patients who suffered from phlebitis use external application of fresh aloe slice on the

day reduced the skin inflamed symptoms. We also found used aloe group phlebitis symptoms were recovered at the fifth days better than used normal saline group that were recovered at the eleventh days.

# **Conclusions**

Aloe can significantly reduced the symptoms of phlebitis including shortening the time of elimination of red swelling, time of pain and time of recovery of phlebitis and finally saving costs of the hospital. Our study providing Aloe vera can effectively prevent and treatment of infusion phlebitis, thereby improving clinical treatment quality, ultimately creating a health-related quality of life.

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Clinical Information Technologists
Have Entered The Medical
Institutions To Explore The Actual
Clinical Workflow. (White Robes It
Engineer?)

# LI Yu Chi, HUANG Kuan Kai, LO Ching Kan, SHIEH Jiunn-I, LIN Yih-Jeng, HUANG Fang Chen

# Introduction

Chief medical information officer (CMIO), a physician that responsible for the health informatics platform is required to work with clinical IT staff, has been implemented in show Chwan health system for 10 years. But, there is still a gap among the CMIO and Clinical IT staffs.

# Purpose/Methods

In solving this problem, a Clinical information technologist (CIT) system comprises of a clinical IT staffs typically a project manager or a system analyzer/designer that dressed in white robe, shuttled between the departments of hospitals as to develop requirement as to improve the medical processes and co work with the CMIO and other healthcare workers.

# Results

There are five levels of maturity/capability in CIT implemented since 2008 in Show Chwan health system, as to interview clinical records and their relevant with medical information system (HIS/EHR System, Web service, mobile apps , and the integration of hardware and software service). The CIT must be trained information related to medical knowledge, understanding of medical terminology and processes through the basic course, and co work with the healthcare worker as to allow the CIT understand the clinical process.

# **Conclusions**

Medical information is a very challenging information system. The interaction and communication exchange among the CMIO, IT staffs and healthcare worker is always a gap in developing a good medical information services/apps. The CIT have been

attending a weekly early morning meeting led by the superintendents or representatives and the healthcare professionals and to review their medical information services/apps. This is a good communication platform for each other to solve the medical information problem together.

### Comments

This implement of CIT and CMIO has also assisted the healthcare workers to open their arms to embrace IT and enhance their IT literacy. In this co work environment, the CIT can also put more effort in developing the patients/publics apps as well. CIT has qualitatively a positive impact particularly in the communication and scope requirement define with the CMIO and the healthcare worker.

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Encouraging the participation of the clinical laddering system to decrease turnover rates of nursing staffs

# YU SHIH-HUI, CHUANG SHU-TING, CHIEN SOU-HSIN, HSU CHI-CHEN

# Introduction

The tiresome shift system, deteriorating doctor–patient relationship, and lower respect towards nursing profession cause nursing staff shortage globally, so retaining nursing staffs becomes critical. The clinical ladder system enhances abilities and provides a sense of achievement. The required reports balance theories and practices, reduce clinical mistakes, and enhance patient's safety. The ladder system promotes effective and high quality nursing cares, and makes nursing staff more confident. Growing participation increases nursing staff's proficiency, and lowers the turnover rate.

# Purpose/Methods

Since 2014, an overall plan combining advanced lessons, schedule holidays, salary system, and mutual encouragement among peers encourages nursing staffs to participate and complete the program. Also, one-on-one tutoring helps the immature staffs to write their research findings, and the public compliments during meeting motivates the staffs to complete the required reports. The seniority system gives a good reason to participate the clinical ladder system.

# Results

The turnover rate of 2012 was 33%, and the clinical laddering rate was only 20%. Since the start of the plan in January 2014, the turnover rate lowered to 10.5%, and the clinical laddering rate was 87.5% in 2014. The continuous plan in 2015 has even better results. The turnover was 3.8%, and the clinical laddering rate was 3.8%. The average satisfaction of the plan scores 97.3.

# Conclusions

The sense of achievement attracts the nursing staffs to participate the program. Also the plan combining peer influence, working schedule, and one-on-one consulting satisfies the participants over the past two years. The nursing staffs increase

their clinical skills and confidence, and increase the quality of clinic cares. The plan increases the satisfaction of nursing staffs, and also enhances the safety of patients.

### Comments

We provide an overall plan including full supports from supervisors, scheduled holidays on the needs of lessons, hospital incentives, one-on-one writing consulting, etc. The plan motivates the nursing staffs to increase their grades, and encourages competition and cooperation with peer influence. The experience may provide a practical example for other units.

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The Effect of Introducing Bundle
Care Using Team Resource
Management in Reducing CatheterAssociated Urinary Tract Infections

HO Yu-Mei, HUANG Wen-Ying, HU Lo-Chen, LIANG Shu-Chien, LIN Ling-Ru, LU Fen-Chin, YAO Wen-Chen, YANG Tsung-Yen, CHEN Chien-Fan, WANG Wen-Yen

# Introduction

Catheter-associated urinary tract infections (CAUTI) represent the most common type of infection seen in critical intensive care unit (ICU) patients. In 2014, the CAUTI rate in our ICU was 4.68%, which was greater than the average 2.75% reported by the other hospitals in the TCPI. Therefore, bundle care was introduced in our clinical practice with the aim to reduce healthcare associated infection (HAI).

# Purpose/Methods

Experts in team resource management (TRM) model were invited to share their experiences. The superintendent of this hospital took the lead in communicating, explaining, and discussing with the clinical departments, as well as conducted the post-implementation review. Evidence-based care bundles were introduced to establish a standard operating procedure and daily placement review. Educational videos were made, clinical technique training was provided, and feedback and reward were given.

# Results

From April to 30 November, 2015, a total of 119 catheter placements were recorded. There were 340 catheter daily reviews. The urinary catheter bundle care compliance rate increased from 63.1% to 87.56%. CAUTI declined to 2.01%.

# **Conclusions**

The results of this bundle care intervention demonstrated that allowing team discussion during clinical operation improved operation quality. Daily catheter review was associated with earlier urinary catheter removal. Compliance with measures of infection control among staffs across various departments effectively decreased HAI.

# Comments

It is advised that the institutes implement and share, establish a standard operating procedure, and ensure consistent service through auditing and review. This equips the nursing staff with knowledge about catheter care and ensures they are implemented correctly in clinical practice, thereby promoting the safety and quality of invasive medical procedures.

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The innovation and partnerships of continuous health care model can reduce the rate of abnormal metabolism

# WU Peiling, HSU Yueh-Han

# Introduction

Alishan south three villages was integrated Delivery System (IDS) in 1998, the establishment for health promoting tribal (HPT) center in 2000 and long-term care services on the tribal stronghold was established in 2011. How to integrate so many various resources and connected to each other become more important. Our team of the Ditmanson Medical Foundation Chia-Yi Christian Hospital established the innovation and partnerships of continuous health care model in Alishan south three villages.

# Purpose/Methods

Combined theoretical model and cultural health to create innovation and partnerships of continuous health model could enhance health reduce the bad habits. 1. Aboriginal perspectives : Respect and understanding the local culture, the development of culture and creative health education and activities(such as the tribal tour, the traditional exercise and tribal food, et al). 2. Established Partnerships: Integrate resources base on aboriginal views, link the community and organizations, to participate in the establishment and regularly held tribal committee meeting.

# Results

From the Transtheoretical Model analysis: The autonomous motion willingness increased from 4.1% to 38.6% between 2013 and 2015; Tribal participation rate was 10.8% up to 23.4% form 2011 to 2014. The results of adult preventive care showed that the abnormal rate of blood pressure was 68.4% reduced to 44.3%; BMI was 72.4% to 58.8%; Fasting blood glucose was 21.7% to 13.4%; Cholesterol was 33.6% to 18.6%; Triglycerides was 28.3% to 20.6% between 2011 and 2014.

# Conclusions

Respect for cultural characteristics and traditions to remove the value imposed on tribes and the innovation and partnerships of continuous health model to enhance the culture of health, reduce bad habits, and then reduce liver abnormalities risk.

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# Set the Electronic Medical Information System for Community Primary Care in Pingtung

# WANG Bing-Chuan, SIE Wen-Lun, KAO Cheng-Chih, LIAO Yu-Kuei

### Introduction

Aging society had been one of the most concerned issues around the globe, Taiwan was no exception. Elderly population was 14.49% in Pingtung, the southernmost county of Taiwan. What's more, being long and narrow in both north and south directions and covered with mountains in the eastern half led to inconvenience in traffic and medical service. To achieve comprehensiveness in primary health care, we established a cooperative alliance through Electronic medical report Exchange Center (EEC) to share medical records.

# Purpose/Methods

Pingtung Christian Hospital (PTCH), the largest regional hospital in Pingtung, constructed EEC network among regional hospitals and local clinics and promoted this system to both doctors and patients. Information shared by EEC includes outpatient drugs, outpatient medical records, laboratory test results, imaging reports, and discharge summary. Doctors can check the above information to accomplish the integrity of health care and decrease in medical expenses and social costs. This study tried to figure out how these data been used.

# Results

EEC data base of PTCH had been accessed 521 times since August 18 to October 30, 2015, which local clinics accounted for 77% (403) and other hospitals 23% (118). Clinics accessed outpatient drugs the most: 73.7% (297), laboratory test results the second: 23.8% (96), imaging reports the third: 19.6% (79), outpatient medical records and discharge summary only approximately 7% in combination. Assessment by hospitals were dispersed more randomly, with laboratory tests, outpatient drugs, and imaging reports in majority.

# Conclusions

The utilization rate of EEC was still not high because of unfamiliarity and some hardware problems, but it would be definitely beneficial for comprehensiveness and continuity of primary care. In the rapidly aging society like Taiwan, medical information exchange do play an important role to improve whole person care and medical service quality, especially in rural area. After upgrading and promoting the system, we will start a new chapter in integrated healthcare.

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# From regional to national health policy

MISEVICIENE Irena, LEVINGER Vilma, KLISONIS Audriius

### Introduction

The Regions for Health Network (RHN) complements work for health carried out at the national level by working with subnational actors. Kaunas Health Promoting Region (KHPR) since 2012 is a member of WHO RHN. One of the aims of KHPR is to join the actions of all WHO coordinated movements such as HPH, Health promoting schools, Healthy cities, etc. and to spread the health promoting initiatives at regional and national levels and to assist the implementation of regional and national health policy.

# Purpose/Methods

Lithuanian HPH Association (LHPHA) having ten years experience in the development of International HPH strategy and twenty years duration of Lithuanian HPH network, continiously is working in the direction of health promotion initiatives implementation in the development of national and regional health policies.

### Results

KHPR works very closely with NGOs (as Lithuanian Health Promoting Hospitals Association-LHPHA) which are involved into health promotion projects and programs. People working together to improve health and wellbeing through prioritizing equity, developing strategic delivery alliances, and fostering good governance is the main strategic direction of activities. LHPHA joins hospitals from different regions of Lithuania. With the initiative of president of the LHPHA and directors-general of Palanga Rehabilitation hospital and Plunge hospital (north part of Lithuania near Baltic sea) as members of HPH network in Lithuania at the top level of Plunge and Klaipeda (city as Healthy city) municipality politicians - mayors - initiated the discussion to expand the health promoting activities within North region in Lithuania. The initiatives are very close related with the expansion of HPH ideology to the primary health centers and creation of Klaipeda health promoting region in case, that Klaipeda city is one of healthy cities in Lithuania..

# Conclusions

Collaboration and communication between organizations working in the area of health promotion of population is the most essential for creation principles of internationally recognized Health 2020 policy and its implementation at regional level through effective regional health policies.

# Comments

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# Session P2.6: Health-literate inand out-patient care

Using mobile nursing model for asthma severity assessment in outpatient department

# KUO Tsung-Huai, HUANG Yu-Huey, KUO Ya-Ling, CHEN Hui-Fei, CHIU Ling-Hui

# Introduction

According to literatures, asthma control depend on medication compliance and self-care behavior. If we can improve the two factors, we can reduce the severity, emergency vist, hospitalization rate and even total cost. Using mobile nursing model by offering helath-care knowledge and inhalation technique face-to-face in out-patient department actively will achieve the two purposes with well asthma control.

# Purpose/Methods

Based on GINA guideline recommendations, patient should receive assessing the medication compliance and self-care behavior. 102 patients were included. Interventional measures were 1) every three months assessment with following-up for one year 2) checking the chart 7 days and phone-reminding 3 days before vist 3) case-manager meet the patient actively in OPD to assess the medicine condition, peak expiratory floow rate . By using open-discussion, inhaler teaching feed-back technique, pictures-guidance teaching template and YouTube multimeida video to imrpove self-care ability.

# Results

102 cases included ,83 completed with 4 stages assessment. 56 males (67%), 27 females (33%). Results of severity improvement: moderate persistent with 60.7%, severe persistent with 82.3%, overall severity improvement 65.1% (p<0.01). Mean number of medications decrease from 1.8 to 1.2 (decrease 33.3%)(p<0.01). Mean PEF increase from 304L/min to 386L/min (increase 27.1%) (p<0.01). Mean ER (time/patiens) decrease from 0.11 to 0.02( decrease 77.8%), mean hospitalization rate (time/patients) decrease from 0.28 to 0.10(decrease 65.2%).

# Conclusions

Case manager offer patient-centered mobile nursing care by active evaluation and continuous individualized health teaching. Effectively helping patient to decrease asthma severity, increase pulmonary function and decrease emergency visit, hospitalization rate. Keeping good relationship with patient also improve medication compliance and enhance self-managing responsibility. It also do a great help with better asthma control.

# Comments

Studies have shown that 69.6% of people with chronic disease are lack of awareness of disease, and only 13.6% of outpatient will seek health education for advice, so the mobile nursing model should be extended from ward to outpatient care of chronic disease. Offering the symptom-recongnized managing eduction during waiting time witll help patients with good disease control. Case manager intervene with follow-up and health teching will have better disease-control and decrease the medical cost.

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# How to Improve People's Health Literacy in Orthopedic Clinic

# YANG Shih-Hsien, LIN Chin-Feng, HUANG Yi-Xun, CHEN Meiyun, CHANG Wushou, Peter, LIN San-Chi, HSU Jiin-Chyr

# Introduction

Most people can not gain enough and suitable health information to make a decision when they encounter a medical problem. If we can improve people's health literacy, we can make people safer. Medical organization should create an friendly environment where people could collect, understand and use all health information. The purpose of this study aims to improve people's health literacy in orthopedic clinic by offering them correct health information.

# Purpose/Methods

Short-form Health Literacy Survey Taiwan Questionnaire revised from Health Literacy Survey European Questionnaire was applied for 100 people in orthopedic clinic of Taipei hospital for two weeks in Feb. 2015. Then top 15 orthopedic disorders were chosen and health education posters were revised and pasted inside and outside the orthopedic clinic. After one month, the questionnaire was applied again for 100 patients in March 2015. The results were collected analyzed by indepent t-test via SPSS sofeware.

# Results

The average scores before and after health information posters pasted were from 2.5 to 3, which was scored by Likert 4-point scale (very difficult, difficult, easy, very easy). Among the 16 questions, There are four questions in the questionaire with significant difference, including knowing the advantages and disadvantages of different therapies, difficulty to search for solutions of treating diseases, making a decision by the suggestion of physicians and how to prevent diseases.

# Conclusions

We can improve people's health literacy by offering people practical and useful information. People can use these information to correct their wrong ideas and behaviors, Then people can care themselves more. If we spent more on health literacy, medical resources can be utilized more effectively and efficiently.

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# The Application of Data Mining Techniques to Prediction of the survival of chronic kidney disease

# TSENG Wan-Ting, CHANG Rei-Tung, LEE Pei-hsun, LIN Dawei, ROAN Jin-Sheng

### Introduction

Ranked as the 10th cause of death and with a mortality rate of 12.1 per 100,000 person-years in Taiwan in 2012, the importance of chronic kidney disease (CKD) care can't be over exaggerated. This study was aimed to identify important risk factors leading to dialysis or death of CKD patients in order to assist clinical physicians and nurses to decide whether to change healthcare strategies to improve the survival of CKD patients and delay of dialysis. It not only improves CKD patients' quality of life but also reduces the burden of National Health Insurance.

# Purpose/Methods

CKD patient data, including biochemical data, medicine data, inpatient data, and outpatient care education, of 'Early-CKD improvement program & Pre-ESRD preventive Program' of a regional hospital in Southern Taiwan was collected from 2005 to 2013. All patients were followed up by the outpatient department at least every 3 months. A decision-tree prediction model, applying the CKD patient data collected three months after treatments, was built to identify early factors in CKD care program, and those contributed the status (survival) of patients 3 years later. Another prediction models, based on artificial neural network technique and logistic regression, were also developed to validate the prediction powers of such models.

# Results

The best prediction model is neural-network-based model with an accuracy rate of 88.27% and an ROC curve of 92.7%. These two figures are 85.71% and 84.5% for logistic regression model, and 73.47% and 80.8% for and decision tree model. CKD stage is the most significant predicting factor followed by Albumin, sugar level, and smoking habit. Those patients who maintain a BMI level between 24 and 29, a stable EGFR level, and a normal Albumin can delay receiving dialysis treatments.

# Conclusions

All three prediction models reach a reasonable level of prediction accuracy and ROC curves. Although the neural network model performs the best, it is perceived as being a black box that is extremely difficult to document how specific classification decisions are reached. The results of decision tree are more suitable with practical situation and models are easy to understand for diagnosis and prognosis of reference for Healthcare workers.

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# Activity as the POMR-reviewer develops health literacy and

# competency to improve health promotion interactively

# NODA Kuniko, SADAHIRO Sumi, FUKUBA Isao, MASUDA Tsuyoshi

# Introduction

We have had patient-participation in various stages of our health services until now. Those are, for example, a conference where patients could attend and a check of outpatient area, and most notably, to share health information by patients accessing their own healthcare records (Problem-oriented medical record) is a very effective approach. It enhances health literacy which in turn brings patients satisfaction. Patients can understand what their problems are and how they can improve their health.

# Purpose/Methods

We recruited reviewers from users of electronic healthcare record reading system for patients. We carried out an education program that taught the reviewers how to operate and read POMR. And they had the role of reviewer. They checked their own POMR along the points of the Problem-Oriented-System(POS) every 2 months, and gave feedback to physicians. We also asked them whether they understood their own POMRs and if they recognized physicians' attitude had improved. And we evaluated the POMR's quality.

### Results

9 of the 10 reviewers answered that they could understand healthcare record and physician's description more than before. And when not understanding, they asked that. 7 felt the contents of healthcare records and explanations became understandable. 7 picked up healthy habits. 9 felt practicing healthcare along with staff was beneficial. 4 learned what to do as a patient, and 10 all recommended this system to other patients. Furthermore the evaluation score of progress notes in outpatient had significantly improved.

# Conclusions

We tried the activity of POMR-review by patients. Reviewers/Patients understood the process of healthcare service, and patients who learned about the appropriate records gained the behavior and the attitude as a patient who has health sovereignty, meaning an enhancement in health literacy and partnership. Moreover, we are convinced this trial has improved the quality of POMRs which is suitable to share the problem and the plan, and which can be understood and shared.

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Using Group Health Education to Enhance Knowledge of Nutrition and Diseases in Hospital Kitchen Workers and Reduce Food Errors

# LIU Tsuichuan, HSUEH Yichun

# Introduction

Food errors occasionally occur in hospitals due to a high staff turnover rate resulted from a complex range of dietary requirements the hospital kitchens have to provide for. The study aims to reduce food errors by providing disease specific diet education to staff to improve their knowledge and understanding of nutrition, health, and disease.

# Purpose/Methods

Group health education sessions on low-sodium, low-potassium, low-fat, chylothorax, neutropenic, and postpartum diet were designed and provided by the dietetic intern students and senior nutritionists to the kitchen workers. Effectiveness evaluations were conducted at the beginning and end of the education sessions to test their awareness of dietary concerns and certain diseases. Data on food errors were also collected during study period to evaluate the effectiveness of the approach.

#### Results

With the guidance of the senior nutritionists, 6 in-service education sessions were provided by 2 rounds of dietetic intern students during the study period from July to November 2015. The average scores before and after the training were 87.2 and 97.6, respectively, indicating an 11.9% improvement; food errors dropped from 11 to 4, which is a 63.6% improvement.

# **Conclusions**

The combination of teaching by the intern and learning by the kitchen workers can increase learning fun, thus increasing kitchen workers learning on health and disease diet concepts and reducing food errors. In addition, dietetic intern students can also learn how to conduct an effective community health education session. Increased interaction with the senior dietitian enhanced the effectiveness of learning and teaching quality compared to traditional teaching.

# Comments

Group health education not only enhanced knowledge of nutrition and diseases among kitchen workers and reduced food errors, but also provided dietetic intern students with learning experiences which develop their skills on designing effective programs in ways of making practical work more efficient. Teaching quality was also further enhanced by this approach.

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# The Second Chance: Experience of Caring a Cardiac Arrest Patient

# CHEN Hui-Lin, PAI Hui-Wen

# Introduction

Cardiac disease has been the second leading cause of death in Taiwan. There are close relation between Cardiac disease and Metabolic syndrome. And Metabolic syndrome is also strongly dependant to life style. In order to reduce the risk of AMI recurrence, personal life style change is essential. It is worth to

study the nursing role as an enabler to motivate patient in making life style change during the process of nursing care.

# Purpose/Methods

The purpose of this study is to explore the jouirney of a nurse caring cardiac patient motivating patient awaked health awareness, and made life style change. This study used patient interview, observation, physical assessment, clinical laboratory data collection, and adopted Gordon's 11 functional health patterns for assessment and further analysis.

# Results

The major findings were as the followings: First, build up trust relationship: Through empathy and listening during the interview process, we eatablished the trust relationship and assisted patient to express the fear of death. Second, promote health perception: Through continuous health education, we enhanced patient's perception in diseases and further promoted patient's life control capability. Third, build up partnership: Through discussions with patient in rehabilitation and healthy behavior plan, we reduced patient's helplessness during the process of behavior change.

### Conclusions

We found that it is effective to reduce the risk of disease recurrence and increase patien's quality of life through promoting chronic patient's disease perception, awakening health perception, and developing partnership accompany with patient. However, the finding was based upon a trustworthy nursing care relationship. Therefore, it is crucial to learn that during the process indicatlization of nursing care, we must not ignore the importance of good quality on nurse-patient relationship and patient empowering patient

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# An Evaluation on the Use of Cerebral Apoplexy Graphic Cards to Inform and Reduce Anxiety of Patients

# HUANG SHU-PING, HSU YI-JHEN, HSU PEI-YUN, CHEN SUNG-YUN, SU WEN-HSUAN, TSAI YI-FAN

# Introduction

The difference in damaged area after cerebral apoplexy will result in different clinical symptoms of patient. Due to insufficient knowledge on clinical symptoms and rehabilitation, the participation rate for rehabilitation activities was low. The project aims to educate patients with knowledge on cerebral apoplexy through graphic cards. Through understanding of cerebral apoplexy and rehabilitation, it reduces patients' anxiety and increases participation of rehabilitation activities. Hence, speed up the recovery time needed for clinical service.

# Purpose/Methods

A set of graphic cards on cerebral apoplexy was produced by a collaboration between medical teams, which includes physicians

and rehabilitation doctors, to provide accurate and complete information. Nurses use the graphic cards to educate patients on rehabilitation exercise in clinical setting after patients received their pre-assessment when they admitted to hospital. After patients have an understanding of rehabilitation exercise, a post-assessment was conducted for comparison.

#### Results

256 clinical patients received the pre- and post-assessment of cerebral apoplexy graphic cards exercise between June to November 2015. Result showed that patients' understanding of cerebral apoplexy symptoms and rehabilitation increased from 41.33 to 76 and anxiety from admitting into hospital dropped from 8 point to 3 point. The participation rate for patients and main caregivers increased from 33.3% to 73.3%.

# **Conclusions**

The use of graphic cards raises awareness and educates patients and their caregivers on the symptoms and rehabilitation for cerebral apoplexy when they admitted to hospital. The information allows a reduction on anxiety level and increase willingness to participate in rehabilitation exercises. This research's conclusion can be a reference for future strategies planning on clinical rehabilitation.

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# An Evaluation on the use of Phosphrus binders Reminder sheet for Hemodialysis Patients

# LIN MEI-LING, CHEN SHU-CHEN, HUANG SHIN-TING, LIAO CHING-CHU, CHANG MENG-LING

# Introduction

Hyperphospheremia is a common problem for patients with Hemodialysis . The long term accumulation results in an imbalance between calcium and phosphorus which leads to excess secretes of parathyroid hormone. This further worsen into renal osteodystrophy. Renal osteodystrophy may cause pruritus, fractures, ostalgia, angiosteosis and even death. There were 80 patients with Hemodialysis in a district hospital from January to May 2015. 24 patients (30%) had an average phosphorus value higher than 5.5mg/dl. On top of regular diet control, an accurate instruction on phosphorus binders consumption was also required. Each medicine have different methods of consumption which leads to different results.

# Purpose/Methods

Medicines purchase in the hospital was categorized into three main categories. Each category had A4 printed colour reminder sheet on instructions and things to take note. Both Mandarin and Bahasa were prepared for nurses, patients and caregivers. During collection of medicine, nurses would inform patients and their families on instruction of medicine consumption verbally. A4 coloured reminder sheets will be used to further explain the

instructions and things to take note. After which, the paper will be fixed on the medicine envelop for future reference and reminder

### Results

After 5 months of implementation of reminder sheets, patients with phosphorus value higher than 5.5mg/dl reduced from 24 people (30%) to 8 people (10%). This shows an improvement on hyperphospheremia for patients with osteodystrophy.

### Conclusions

Through the use of A4 coloured reminder sheets to remind patients on the instructions and things to take note for phosphorus binders intake, it can increase the accuracy of medicine consumption. This will help to prevent complications of hyperphospheremia.

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# Promotion of Oral Health and Care in the Intensive Care Unit

# **CHENG Chiao-Ling**

# Introduction

Oral health has a profound effect on general health. Oral hygiene is the most basic physical needs of patients. Improper oral hygiene will lead to oral state changes, especially on the endotracheal tube intubation patients. Changes in oral mucosa associated with a variety of diseases, such as pneumonia, endocarditis and bacteremia, etc... The purpose of this study is to reduce of endotracheal tube intubation patients' oral mucosa change of by improving the accuracy of intensive care unit (ICU) nurses oral care process.

# **Purpose/Methods**

We revised standard operating procedures and oral care oral assessment scheduling, classroom teaching and oral nursing clinical teaching, design posters and note cards and establish quality control pointer and periodic audits. Comparison the correct rate of the paramedic's oral care process and oral mucosa completeness in endotracheal tube intubation patients on six months later.

# Results

The cognition about oral care on nurses from 80% upgrade to 95%. The correct rate of the paramedic's oral care process from 17.6% rose to 85.7% and oral mucosal completeness 38.7% increased to 61.1% in endotracheal tube intubation patients.

# Conclusions

Intensive care unit (ICU) patients have complex oral care demands. Inadequate oral care may predispose ICU patients to nosocomial infections. Therefore, education and focal point on good oral care strategies are required; encouraging the general use of oral needs assessment tools is a priority, delineate the best standard operating procedures for patients and further oral care training were necessary.

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# Diabetes telehealth services

# CHEN Shu-Ling, CHEN Chieh-Fan, HUNG Jui-Lien

### Introduction

Diabetes is a common and complex chronic disease that will produce a variety of severe complications if poorly controlled. This paper reports the case of an elderly patient with type 2 diabetes who usually relied on active insulin injections to control his blood sugar.

# Purpose/Methods

Recently, however, his test results of HbA1c> 8.0% indicated poor control of his health situation in comparison to the past. The patient was under our care from January 15, 2015 to April 30, 2015, during which time a detailed medical history was taken in the course of ongoing consultations between doctor and patient. In addition, instant messaging software (LINE), e-mail and other means were used to gather information and make overall assessments of the patient's health. It was confirmed that the major health issues in the case were: (1) the potential dangers of unstable blood sugar levels, blood glucose monitoring methods, insufficient frequency of blood glucose monitoring, and poor diet and eating habits; and (2) the subject's willingness to enhance his own ability to control his disease and make use of the cloud-based professional care platform, with a view to maintaining good control over his blood glucose levels. The author used the cloud-based professional care platform in the process of caring for the subject, to assist the subject in successfully implementing continuous glucose monitoring. The subject was able to upload data including exercise habits, the food he ate, his feelings, and photographs to the cloud-based professional care platform.

# Results

Moreover, thanks to the medical team's ability to instantly reply to the subject, he was gradually able to correct his eating behavior and cut back on his medication dosage. In addition, the subject's wife and son were invited to be his "partners" in controlling his blood sugar and to assist the subject to deal with this problem. After three months, the subject's glycated hemoglobin had dropped from 8.2% to 7.3%.

# **Conclusions**

In light of the ever-changing technology in the information age, it is suggested that nurses should be able to use the information available to them and the concept of a "Community of Patients" to manage chronic disease, as this will assist patients to manage their blood sugar levels.

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# Investigating factors influencing electronic health literacy among the elderly in local communities

# WEN-LI Wang, HSIANG-TE TSUEI Sian, WEN-LIN Hsu, YIH-JIN Hu

# Introduction

Given the increasing awareness of the importance of health, more individuals are searching for health-related information on the internet. The corresponding emerging need for electronic health literacy (eHealth literacy) is defined as the ability of the "individuals to search, identify, understand and evaluate electronic healthcare resources to solve personal healthcare problems or to promote well-being." The number of electronically literate elderly is increasing in most developed countries. This study aims to evaluate factors influencing eHealth literacy among elderly in Hualien County, Taiwan.

# Purpose/Methods

The questionnaire was based the eHealth Literacy Scale (eHEALS) as described by Cameron D. Norman. It was subsequently validated by five scholars and practitioners. CVI value for content relevance and text clarity were 0.90 and 0.86 respectively while Cronbach's eHealth literacy scale  $\alpha\text{-value}$  scored 0.901. In this cross-sectional study, a total of 172 questionnaire responses were subsequently collected with informed written consent in April 2015 from four different local communities in Hualien County.

# Results

Chi-squared analysis showed that among the elderly's use of internet is dependent on former occupation (p<0.001) and level of education (p=0.023) The eHEALS 4-item measure showed that the confidence (p=0.004), and the ability to find (p=0.025), evaluate (p<0.001), use (p=0.013) in obtaining electronic health information are significantly correlated with the level of internet usage among the elderly.

# Conclusions

This study showed significant association between the amount of internet usage among the elderly in this community and the individuals' former occupation and level of education. However, as most elderly lack of access to Information and Communication Technology (ICT) devices, we hope that the government can promote cloud-based eHealth literacy in the near future to assist the elderly in healthcare management, in hopes of improving their well-being.

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# Overturn health culture and create the complete function

CHEN Ming-Hsiang, HOU Yi-Cheng, LIN Chi-Yan, WU Ting-Yu, LIU Hao Wen

### Introduction

In response to the increasing national demand for acquisition of health diet knowledge, hospital employees and community volunteers work together to convey the new health knowledge. Objective

# Purpose/Methods

To provide concept of health and help the community better understand the relation between vegetables and life through this culinary overturn teaching. The members consist of community residents and volunteers as perspective trainees. The course lasts about 8~15 weeks with content including Chinese cooking, baking and desserts. Trainees will take the certification examination organized by the government after completing the training as a supporting figure of assessment result.

### Results

The members registering for participation in overturn teaching consists of community residents and workers. Over 58% of them consist of mid-aged to elderly people with 31% of them are vegetarians, nearly 10% of the registrants residing in other counties and cities. The conclusion significantly improved after 8~15 weeks of course. In post-examination, 95% of trainees answered questions on vegetable correctly with healthy vegetarian diet appealing in using less oil, salt and sugar for cooking; 100% of the trainees learn to apply cooking techniques. Moreover, 80% of the trainees gained knowledge in food miles while 90% of them have been tested before the promotion of etiquettes. The trainees took national professional certification examinations and 92% of them received the professional food & beverage certificate, improving their function and attitude to create.

# Conclusions

Members learn to cook vegetables in season using low amount of oil, sugar, salt and less processing after training and prepare the savory dishes needed.

# Comments

In the future, the course will shift toward creating employment for trainees and a place for sharing. Members acquiring professional certificates may implement in community as the function framework defined for seeds of love and overturn the conducts of health culture teaching, so that everyone can directly acquire knowledge on health culture and create complete functions

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# Session P2.7: Applying the HPH standards and guidelines

The Seoul Metropolitan Hospital HPH Project

# KIM Kue Sook, LEE Yu Jeong, CHOO Daniel, LEE Ji Hong, LE Lai, LEE Woo Hyung

# Introduction

The large amount of health expenditures due to rapid aging and chronic disease has revealed the importance of preventative health care. In 2011, the Seoul Metropolitan Government Public Health Services applied to be a WHO HPH planning to utilize existing infrastructure to maintain the health of local people, to improve the quality of life, prevent the causes of illness and injury, and improve upon health inequalities and disparities in order to create a healthy workplace culture.

# Purpose/Methods

After applying to be a WHO HPH, the Seoul Metropolitan Hospital made plans to promote the creation of a smoke-free hospital, a safe and health workplace environment, and campaigns for residents to plan and manage their own health.

### Results

1) Creating a smoke-free hospital: creating a non-smoking environment (placing non-smoking banners and posters), declaration as a non-smoking hospital, beginning of a staff nonsmoking program, educating lung disease patients about nonsmoking, targeting local residents with non-smoking campaigns. 2) Creating a health and safe workplace environment: free infectious disease testing for all employees twice a year (February and August), body fat testing and obesity counseling for faculty, promotion of gym usage to hospital staff, utilization of stairs for exercise for traveling between the bottom three floors. 3) Campaigns for residents to plan and manage their own health: chronic disease prevention programs (hypertension, diabetes - 1 free consultation per month), free medical care and counseling for local residents (once a month), inexpensive vaccinations (20-25% cheaper than nearby hospitals), hospital cultural performances (once a month), and health education classes for local residents (once a month) were carried out.

# Conclusions

Continuous practicing of WHO HPH programs that utilize health promotion services to create a healthy and supportive physical and societal environment, detect and prevent the early onset of chronic disease caused by societal burden, and promote staff health to avoid the loss of human resources may induce a change from the treatment and provider centered medicinal practice to one that enhances health services and focuses on preventative medicine.

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# Session P2.8: Innovative health promoting direct service provision

Person-centred care and health promotion - an example of combining the two perspectives

# **MARIPUU Sara**

# Introduction

By creating a task force (2010) the Swedish HPH wanted to strengthen the focus on health promoting encounters. The task force started with presenting an on-line educational material. This has since been edited together with other information available on the national website. The task force has also arranged three national conferences. The last one discussed how to combine person-centred care and health promotion. As one result of that conference the task force coordinated the production of a new educational booklet.

# Purpose/Methods

The purpose was to produce a booklet with facts and statements usable for discussions and developing-processes regarding health promotion in a personcentred perspective. The target group was leaders on the directional level of the health care system. A project manager was engaged and a working group was formed consisting of representatives from the task force, a patient-representative and researchers. An editorial support was engaged for the layout of the booklet. The whole process took about one year.

# Results

The booklet "Person-centred care - An effective healthcare with the human being at the centre" was presented at the national HPH-Conference in March 2015. It has then been spread throughout the network to all member-organisations. The task force has a responsability to enhance the use of the booklet by updating information and references, and by producing a slideshow, all of it presented on the national website. In collaboration with two researchers a few short films have been produced.

# Conclusions

Patients are persons who sometimes are in need of Healthcare. In person-centred care, health and social care professionals work collaboratively with patients. By combining the two perspectives person-centred care and health promotion, the Swedish HPH will be able to play an active roll in the paradigm shift towards a personcentred care built on health promoting encounters with patients. This paradigm shift will support patients to recognize and develop their own strenghts and abilities to live independent and fullfilling lifes.

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Region Kronoberg Nygatan 20, Växjö, SWE sara.maripuu@kronoberg.se Friendly Medical Environment Message boards set up for improving
the friendly and dynamic sharing of
the doctor-patient relationship

# YANG WAN-ZHEN, YEN YA-HUI, HSU CHI-CHEN, CHUANG SHU-TING, CHIEN SOU-HSIN

# Introduction

Taiwan central Health Insurance Bureau survey in 2014 shows that medical dispute cases are multiply increasing every 3 years. In order to establishing a good doctor-patient relationship, medical personnel need to learn the well of skill of listening and establish a channel of communication. Since 2015.11, a total of 102 inpatients, we set up dynamic message boards for establishing a communication channel between the doctors and patients and see if the satisfaction improved.

# Purpose/Methods

A dynamic message board in wards by nurse staff was designed. The patients and their families can use the board to leave message or express their feelings on the board to the medical team. The medical team also can use the board to make precautions or medical message for the patients and families. There were 102 inpatients in this study in the 1st month. We like to realize the satisfaction improvement after using dynamic message boards.

# Results

The questionnaire in this study; "the physician can listen my feelings patiently", "nurses can solve my problems" the satisfaction ratios respectively from the original 82.6% and 84.2% increased to 97% and 98%. The average overall satisfaction with medical services also increased to more than 95%. The result shows that satisfaction of health care services are improved by the message boards.

# Conclusions

A well of interaction and communication between doctors and patients could elevate the satisfaction of medical services. The dynamic message board could provide a way for communication of medical services meanwhile it could reduce possibility medical dispute. On the other hand, make the dynamic message board more creative and designable also could make the medical ward more warm and cozy and provide the patients and families a feeling different from the past.

# Comments

Established a communication channel for a good doctor-patient relationship is very important. By using the dynamic message boards, a communication tool that provides patients and their families a way to express their needs on medical service and provide the services in time by medical staff. The dynamic message boards are not just improving the satisfaction also creative a warmly and friendly medical environment for patients and their families. Meanwhile, a good doctor-patient relationship also could reduce the potentially medical dispute.

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# Improving Long-Term Caregiving of Taiwan's Disabled Elderly

# WU Chun-Hui, WANG Shu-Chi, CHEN Hueifang, WU Hong-Lien, CHU Nain-Feng

# Introduction

Long-term caregivers have played a key role in providing quality home care to the disabled elderly. It is believed that a caregiver with lower levels of physical stress can provide better care to a disabled elderly individual. The purpose of this study is to explore the potential benefits of a support service, provided by a hospital in-home care team, in which long-term caregivers use massage to relieve stress and physical tension while further promoting the well-being of elderly care receivers.

# Purpose/Methods

Families with disabled elderly who received our home care services were invited to participate in a 2-hour experimental service. A registered nurse with massage training gave a lecture on physical impacts of stress, characteristics of muscle tension and ways of identification, ending with a demonstration of muscle relaxation techniques. Caregivers received a massage to experience the relaxation proper massage technique provides. This allows caregivers to see the benefits of massage therapy. Elderly patients then received a supervised massage from their caregiver and provided feedback.

# Results

Four families participated, including 3 elderly care receivers (1 female and 2 males with a mean age of 71.6 years) and 4 caregivers (4 females, one daughter and 3 paid foreign care aides). All 7 participants were 100% satisfied with their experience. All enthusiastically expressed the foreseen benefits of the techniques learned in reducing muscle tension, bone pain and tingling discomfort caused by stress and body inactivity.

# Conclusions

The tremendous positive feedback and requests to run similar support services on a regular basis demonstrates the success of this service. With repeated sessions, this service will help relieve stress the caregivers are bearing, while minimizing the negative impact of physical inactivity for the elderly, promoting a win-win situation for both the disabled elderly and their long-term caregivers.

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# Methods to Decrease the Incidence of Inpatients Falls in Acute Care Setting

# **KUO Hsien Hwa**

# Introduction

Our hospital is a regional teaching hospital. The incidence of inpatients falls was 0.16% in January to March, 2014, higher than

the average rate (0.06%). Besides, the injury rate caused by falls was 30%. In order to prevent accidental falls, we set up a quality improve team to reduce the fall incidents and injury rate. The reasons for falls were investigated, including the health factors, environment factors, and medication factors. After analysis, several key influence factors was checked by team members.

# Purpose/Methods

The key factors were lacking knowledge of the caregivers to prevent falls, inadequate education about high risk medications (ex. sedative drugs), insufficient attention to high risk patients and inefficiency of facility. We utilized several prevention strategies:1.Re-designed corridors on the concept of accessible movement, 2. Health education about falls prevention, 3. Bedside alarms 4. Warning cards, 5.Hospital beds with whole bed rails, 6.Hand rail in bathrooms, 7.Announcement of falls prevention by daily broadcasting, 8.Education(Video tape).

#### Results

After implementation those methods, the incidence of falls decreased from 0.16% to 0.05% and the injury rate decreased from 30% to 16% as well. Test of knowledge of the caregivers to prevent falls rasied from 56 to 89.

## Conclusions

Increasing the awareness of nursing staffs, patients and family is the most important and effective method of falls prevention. In addition, the positive attitude of staffs will facilitate patients and family's cooperation in falls prevention. Announcement of falls prevention by broadcasting every shift also useful to reminded caregivers to pay more attention to patient's postural unstable problem.

# **Comments**

Inpatients falls prevention is one of the core measurements of patient safety. Caregivers frequently and nonjudgmental remind is helpful to reduced fall incident and harm rate.

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VIP (Very Integrated Program) project: Health Promotion for Alcohol and Drug Abusers

# HOVHANNISYAN Karen, SKAGERT Eva, ADAMI Johanna, TØNNESEN Hanne

# Introduction

Drug and alcohol addiction often accompanied by risk factors such as heavy smoking, poor nutrition and physical inactivity as well as increased co-morbidity. A cross-section HP could have a major potential for better outcomes for these patients.

# **Purpose/Methods**

The aim is to identify the presence of comorbidity and lifestyle risk factors, and to evaluate the effect of adding the VIP health promotion program to usual alcohol/drug treatment. 400 adults with alcohol and drug dependency are screened. 240 patients included 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. Patients randomized to control or intervention groups and followed up for two years.

# Results

322 patients were screened, age 51 years (23-79), 33 % were women. 71% were alcohol dependent and 53% drug dependent. The 93% had at least one HD and 54% had 2 or more. 75% were smokers, 59% had overweight and 35% were physically inactive. 70% of the screened had at least 1 co-morbidity. 41% had heart disease, 25% respiratory disease, 26% liver disease and 7% had diabetes. 214 patients (66%) were included in the RCT.

### Conclusions

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

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# The Study of Workplace Stress Management and Innovative Service Models at Psychiatric Center in Southern of Taiwan

# SHEN Shu-Hua, YEN Miaofen, LI Yi-Hsien, LU Huei-Lan, CHOU Tsai-Ying, WANG Hsueh-Yin, CHENG Ching-Ming

# Introduction

The purpose of this study was to promote the workplace stress management and innovative service models in Taiwan public mental health institutions, expecting to understanding the status of employees' happiness index and body happy message status, to help organizations create a workplace mental health promotion of healthy culture.

# Purpose/Methods

The cross - sectional method applied in this study. Subjects were 206 employees in psychiatric center in southern of Taiwan. The "Gross National Happiness Index Scale" and "happy body message body scale" were used to measure employees health status. The "happy body message scale" through factor analysis is divided into four dimensions include: health life energy, relax energy, beautiful skin energy and mind energy, factor loadings of between 0.598-0.888. Data collecting was applied Individual interviews.

# Results

Predominantly female with an average age of 35.3 (SD=8.9), life satisfaction and overall feelings of happiness were 69 and 71 points; the highest score of 78 points happy body message satisfaction was mind energy, 35 points was beauty skin energy, included dark circles under eyes, poor look color and face acne. Workplace stress management promotion and innovative service models found that there were significant positive correlation among employees aware happiness in life, body happy message and body health energy.

### Conclusions

Study found there was significant positive correlation among life satisfaction and relax energy (r = .460, p  $\leq$  .001; r = .220, p  $\leq$  .001), the overall feeling of happiness and health energy have significant positive correlation (r = .420, p  $\leq$  .001).

#### Comments

Therefore, to promote workplace health, need to focus on the creation and promotion activity and good sleep quality for staffs, it will be the primary strategies to promote more desirable results obtained from the use and can also be shared with others medical institution.

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# A Preliminary Study On The Implementation Of The Sixth Vital Sign of Emotional Distress

# HUANG Kuan-Chin, CHEN Chin-Chin, JEANG Shiow-Rong, KU Yan-Choiu, CHENG Jin-Shiung

# Introduction

To discuss the current implementation status of the entire hospital nursing staff as it relates to the sixth vital sign of emotional distress

# Purpose/Methods

Daily correction audits were conducted between August and November of 2015; any omission was followed up immediately with a phone call to understand the reason for the omission

# Results

There were a total of 678 records, with an omission rate of 19.2% (130/678). The analysis based on the reasons for omission is: "forgetting to record the emotional distress health problem" made up 15.5% (105/678); "not knowing there is an emotional distress health problem" made up 0.3% (2/678); "confused the definition with other health problems" made up 0.3% (2/678); "the patient was scheduled to be discharged from the hospital" made up 0.4% (3/678); "erroneous score selection" made up 2.7% (18/678).

# Conclusions

The inclusion of emotional distress as the sixth vital sign is the first of its kind in the country for this hospital, in accordance to the holistic health care concept. When the emotional distress score is greater than 4, a nursing care plan and a management strategy need to be developed, in order to assist the medical team in quickly understanding the emotional changes in the patient, and to provide psychological support and comfort

# Comments

In order to avoid omission, this standardized technology is recommended to be included in the new employee preemployment training as well as the nursing personnel on-the-job training. In addition, the electronic medical history should be geared towards system error prevention and correction, in order to provide better care for the patients.

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# Session P2.9: Using self-report measures in healthcare

# Music reduced discomfort during colonoscopy

# LEE Jaekyung, HWANG Kyeongae, KIM Ji Won

# Introduction

Despite of the conscious-sedation, how to reduce the pain and fear- related discomforts during the colonoscopy is of great interest in every patient and endoscopist. This study is to evaluate the effect of music on the patient reported discomfort the conscious-sedation colonoscopy.

# Purpose/Methods

154 subjects aged between 24 and 63 years who underwent screening colonoscopy at SMG-Seoul National University Boramae Health Care Center performed self-report questionnaires before and after the conscious-sedation endoscopy. The study group listened to the light classical music via pillow speaker, and the control group did not listen to the music but used the same pillow. The patients, the physician who performed the procedure and assistant nurses were all blinded to the exposure of music.

# Results

Patients reported total or partial amnesia about the sedative endoscopy procedure. The level of amnesia and the pain score was not different in the two groups. The level of tension and anxiety were lower in the group listening to the classical music. 92 percent of the study group patients wanted to listen to the music in their next colonoscopy.

# **Conclusions**

Regardless of the musical preference and background, classical music reduced patient reported tension and anxiety during colonoscopy in our study. Musical environment may reduce patients' discomfort and improve satisfaction in the endoscopy lab

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# Establishing a system of self-report measures of depression and anxiety in an outpatient program

# D'AGOSTINO Mark, LEHR Maura, BORCHERDING Breck, WALD Daniel, MCGRATH Douglas, RUSS Mark

# Introduction

Standardized measurement-based assessment to guide clinical decision-making, improve patient engagement, and optimize outcomes is underutilized in psychiatric practice (Nelson, 2015). Provider resistance to use of patient reported outcome measures (PROs) includes time constraints and validity concerns, despite data demonstrating that self-reports of psychiatric symptoms are efficient and comparable to standardized clinician interview techniques (Zimmerman, 2011). Engaging clinicians to utilize PROs in clinical practice is a key step in supporting patient engagement and participation in shared decision-making (Santana et al, 2015).

# Purpose/Methods

Establish an infrastructure and procedure in the Adult Outpatient Department (AOPD) of the NewYork-Presbyterian/Westchester Division, to report symptoms of depression and anxiety utilizing PROs. Patients, ages 18 and older, with a DSM 5 affective or anxiety disorder diagnosis are encouraged to participate. Patients view an introductory video explaining the process, and two PROs, the CUDOS (depression) and CUXOS (anxiety), are administered on computer tablets prior to each visit. Results are immediately available to clinicians to inform treatment decisions.

# Results

Results, including scores on the CUDOS and CUXOS (Zimmerman 2008; 2010), flagged (high risk) items regarding patient safety, and a graphical representation of scores over time are transmitted electronically to the clinician in real-time. To date patients and clinical staff are utilizing the infrastructure and have demonstrated feasibility. Computer-tablet kiosks have been established in the AOPD waiting area. Early feedback suggests enthusiastic acceptance by patients, and clinical utility in treatment decision-making.

# Conclusions

Patient self-reports of psychiatric symptoms are highly desirable with respect to clinical outcomes and patient engagement. The model for obtaining these reports developed by Zimmerman et al is readily adoptable to an academic outpatient clinic of moderate size without a tradition of utilizing patient self-report data. Future work includes a randomized control trial to systematically measure the impact of obtaining self-report measures on clinical decision-making, patient outcome measures including treatment drop-out and no-show rate, and patient engagement and experience.

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# Session P2.10: Organization and management to create a change towards a culture of health

**Evidence-based Benefits in Enhancing Health Evaluation and Promotion for Patients using Integrated Hospital Information System** 

# **CHEN Sheng-Pyng, CHANG Hung, CHANG** Po Jen, CHANG Huan-Cheng, WU Li-Ching

# Introduction

Hospitals should not only be the place for disease diagnosis and treatment of patients, but also for the disease prevention and health education. Unfortunately, the heavy work loading in medical practices often results in staff overlooking or neglecting the importance of preventive medicine which can make the health care system lack of effectiveness, efficacy and equity.

# Purpose/Methods

Within the November 2013 to December 2015, the out-patient department of Family Medicine designed a integrated HIS program for the initiative data filling of various health evaluations (including blood pressure, BMI, waistline, behaviors such as smoking, drinking alcohol, chewing betel nuts and exercise) as well as the specific and immediate health education would be arranged. The proportion of these outpatients who received the intervention will be collected and analyzed to the statistical information.

Before the program implementation, a survey questionnaire in the out-patient department of Family Medicine showed that only 10.3% of the outpatients felt that health evaluation and education were provided by their doctors. After the intervention of the program, evaluation of relevant risk factors and healthy education become more emphasized and the proportion of intervention increases significantly

# Conclusions

Busily clinical loading often results in doctors' disproportionate emphasis on the management of the disease and even without any medical preventive intervention. As analysis of the results shows significant increased effects, it has been shown that establishment of an appropriate integrated HIS program can effectively remind doctors to provide health evaluation and promotion, as well as personalized health education even the HIS reform usually will be cursed by doctors at the beginning.

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# **Creating a Safety and Friendly Medical Adverse Event Reporting** Mode to Enhance the Organization's **Health Culture**

# CHENG Ching-Ming, SHEN Shu-Hua, LU Huei-Lan, WANG Hsiao-Wu

#### Introduction

The psychiatric center has been established a safety culture organizations team through employee, patient and community people participation. This healthy reporting culture could build up a safety and friendly e-reporting system, immediately to provide medical adverse event reporting rewards and improvement measures. Expectations by creating a safety and friendly medical adverse event reporting mode to enhance organizational teamwork, safety culture, awareness and recognition of the pressure on the organization and other organizations together to create a healthy culture.

# Purpose/Methods

The purpose of this study was to creating a safety and friendly medical adverse event reporting mode to enhance the organization's health culture. The subjects included all hospital staffs at a psychiatric center in southern of Taiwan, questionnaire investigated before and after the intervention. Questionnaire tool was the "patient safety culture and organizational citizenship behavior scale", was divided into two item, eleven problem questions, each question item, mining Likert Scale 5 points scoring method. Using frequency distribution, percentage, mean and t-test performed statistical analysis.

# Results

The result showed that effective sample was 204, 82% female, 37% was age 20-40 years old, 67% had bachelor degree,89.2% had more than one year work experience ,and 69.6% was medical personnel. Overall patient safety culture and organizational citizenship behavior have enhanced , organizational citizenship behavior had the statistical significant difference , item of "organizational resources" particularly had statistically significant differences. Higher level of education, medical personnel position also had higher safety culture organizational citizenship behavior.

# Conclusions

Medical institutions could promote the patient safety from the policy of the organization and management, combined with community resources and encourage employees to participate in patient safety and to create a friendly medical adverse events reporting mode, providing reward immediately can significantly improve organizational citizenship behavior and organizational resources, and especially of highly educated, competent and a higher degree of satisfaction with medical personnel.

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# The Approach for Building Elderly Friendly Atmosphere at Hospital

# HSU Hung-Yi, YEN Chen-Jung, HU Ya-Ling

# Introduction

In an effort to provide the most suitable environment for elderly care and to create the best atmosphere, various activities are implemented. As a result, staff awareness of hospital policy has increased from 77.4% to 85.5%, training activities also increased from 69.4% to 89.4%, as a result, the implementation of care process is enhanced and the hospital is also awarded with the certification of elderly-friendly hospital by the Ministry of Health and Welfare in Taiwan.

# Purpose/Methods

In order to provide better and more comprehensive health care for up to 25.3% of elderly outpatients, activities such as slogan competition, quality competition, education and training, elderly experience activity, as well as a series of promotions through placard, poster, intranet and etc. are in place to engage staff. All these efforts helped to increase awareness among staff to build an elderly-friendly care environment and process.

# Results

As a result, awareness of hospital policy for elderly friendly care is raised from 77.4% (n/N=983/1270) to 85.5%(n/N=1098/1284). In addition, basic training programs for elderly care increased from 69.4%( n/N=1485/2141) to 89.4%( n/N=1803/2016), core training also increased from 76.2%( n/N=1151/1510) to 91.0%( n/N=1346/1479).

# **Conclusions**

In order to create a better organizational culture and to improve the understanding of hospital policy, participation in mandatory and elective programs among staff has helped to increase the awareness toward hospital policy. However, the correlation between awareness and implementation is not yet demonstrated. The certification issued by the Ministry of Health and Welfare in Taiwan serves as a good indication for the hospital efforts.

# Comments

The most important factor for creating a successful care environment is through mandatory trainings. Elective and voluntary activities and competitions also help to improve the implementation among clinic staff.

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Apply Bundle care to reduce Central Line Associated blood stream infections (CLABSI) - Experience of a Regional Hospital

# YAO Wen-Chen, HO Yu-Mei, HUANG Wen-Yin, YANG Po-Wen, WANG Wen-Yen

# Introduction

In 2013, the rate of central line associated blood stream infections (CLABSI) rate in a regional hospital was 3.02%, which was higher than the average rate (2.51%) reported by other regional hospitals in Taiwan on TCPI. Severe CLABSI is associated with increased overall length of hospital admission and mortality. The America Institute for Healthcare Improvement (IHI) has suggested that implementing evidence-based care bundles reduces incidences of infection.

# Purpose/Methods

The central line bundle care was introduced and the outcome was monitored. The following procedures were performed: 1. revision to operational guidelines and produced instruction video; 2. Conducted education, training, and certification system; 3. Improved the accessibility and integrity of the relevant equipment; 6. Established systemic inspection and auditing.

#### Recult

From 2014 to June 2015, the CLABSI rate was 0.68%, which showed a decline of 77% compared with 3.02% reported in 2013. The comprehensiveness rate of the central line bundle care increased from 70.5% to 97.6%. The average central line days lowered from 8.6 days to 4.6 days. The central line utilization rate also dropped from 54.6% to 32.3%.

# Conclusions

Introducing central line bundle care using teamwork and case management model improved the technique and the care of health practitioners, thereby effectively minimizing CLABSI and the non-necessary medical costs, complications, and patient injuries.

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# Improved Patient Safety with Lean Fall Prevention Network

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# Introduction

Modern health care is a patient centered care; patient safety is emphasized. Accidental fall is a common patient safety issue that prolongs hospitalization and increases medical costs. Clinically, there are many instances where falls may occur. Therefore, an interdisciplinary team was established in our hospital for discussing and establishing a multitude of preventative measures. The patients and their families also participated in the preventative measures forming a comprehensive fall prevention network for ensuring patient safety and improving health care quality.

# Purpose/Methods

Lean concepts were combined Team Resource Management (TRM) for establishment of fall prevention network. Custom health education cards were produced and laminated for repeated usage to prevent waste. The fall assessment checklist was revised with information reconsolidation. Proper assistive device is freely provided for patients' use. Regular meeting of case reviews and improvements were organized. Patients' families participated in prevention measures, where educated patients and their primary caregivers are to remind mutually and reduce the fall rate among hospitalized patients.

## Results

The program was implemented in September, 2014; the related factors of fall cases from September, 2014 to March, 2015 were analyzed. Patients of different high risks were provided with preventative measures. The pre-program fall rate was 0.16%, injury rate 32%. The fall rate increased to 0.18 % during initial period of implementation, yet with decreasing injury rates. Because organizing promotional meeting and educational training led to more accurate reports. The injury rate was lowered to 18.5 % in December, 2015.

### **Conclusions**

Lean concepts were combined TRM methods for establishing a fall prevention network. The preventative measures were established through brainstorming discussions among team members. After one year's implementation, the report rate was increased. This allowed our members to understand more fall scenarios for reviews and improvements. It showed; increasing patient observation by medical personnel provided personalized preventative measures for effectively reducing patient fall injury rate. The better communication between medical care team and patient families achieves a patient centered medical care.

# Comments

A more validated fall prevention screening tool may be established for analyzing reported fall incidents to determine the high risk patients for effectively reducing further medical human resource costs. Furthermore, determining high risk patients from reported data can be used to establish customized services and warning tools for achieving the goal of patient fall prevention.

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Improving first aid skills of general ward nursing staff with team resource management

TSENG Meng-Chuan, TANG Huei-Jyun, SHEN Hui- I, CHANG Hsiao-Chien, CHAN Cho-Yu, HSU CHI-CHEN, CHUANG Shu-Ting

# Introduction

Team Resource Management (TRM) has become an important aspect of health care because it can be used to effectively increase patient safety. Effective utilization of TRM can reduce

human errors and thus increase patient safety to achieve efficient and quality medical cares. Unexpected medical emergencies, due to their urgencies, rely heavy upon the first aid skills of the responding care staff. Therefore, in this study, TRM is utilized to improve nursing staff first aid techniques for improving patient safety.

# Purpose/Methods

Departmental nursing staff was educated on TEM principles and applications through class room as well as practical first aid trainings. The practical first aid training and simulation allows the nursing staff to become familiar with first aid skills. Furthermore, an "introduction to TRM first aid video" was recorded as a demonstration teaching video for training of future new nursing personnel for improving their first aid skills.

#### Results

The program was commenced in July, 2014. Field simulation was performed prior to test the initial first aid skills of 17 nursing staff. The staff scored an average of 53.4 points. The same 17 staff was tested again in September, 2015. The staff scored an average of 88.1 points indicating an 65 % increase in their first aid skills. Furthermore, the majority of the medical care staff were satisfied (95.3 score) with the training program.

# Conclusions

The first aid skills and model of ward nursing staff was improved using TRM techniques. The staff was able to effectively perform emergency resuscitations through team work. The implementation of this one year program was met with positive recognitions among the staff. The nursing staff's first aid skills and confidences were improved as well as the effective communication among medical care team. This training model not only increases staff satisfaction, it also has a positive effect for improving patient safety.

# Comments

We applied TRM methods to training program with clinical skill to our staff. We also provided an in situ simulation and patient simulator to our staff for training the skills of first aid and resuscitation. From the program, the staff learned to cooperate and communicated with other team members more effectively. This program provided a model for other medical teams/units.

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Utilizing Lean Management for Improving Surgical Patient Safety Care Model

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# Introduction

Incorrect surgery preparation can hinder surgery progression, delay patient operation, increase the stress of the patient and

families; prolong medical care team communication and operating procedures; and lower the patient's perceptive hospital service quality. The utilization of lean management can improve surgical patient's inpatient procedures, establish a comprehensive preoperative preparation operating model, and improve surgical patient care safety.

# Purpose/Methods

Patient preoperative completion rates were determined analyzing "Surgery or Anesthesia Consent", and "Surgical Safety Checklist". Retrospective reviews of patient records were compared with missed items on preoperative preparation checklists for establishing patient separation and process confirmation checklist; and consolidating "surgery patient safety checklist/turnover duty record". The use of value process is lean for critical processes, procedures, and turn over contents. The condensed process ensures safe, smooth, and timely surgical related operations for reducing processing time and improving patient care safety.

#### Results

A total of 382 surgical inpatients were evaluated between Jan 1st and March 1st, 2015. The preoperative preparation incompletion rate improved from 2.0% to 0.9%; the anesthesia preoperative visit completion rate and time improved from 80.1% to 85.6% and 82 mins to 32 mins, respectively. These improvements reduce patient waiting time and complaints. The surgical forms also reduced from 7 to 5 pages, saving NT\$ 5,110 annually in paper costs; the unnecessary personnel time for completing the forms was saved.

# **Conclusions**

The utilization of lean management not only can safeguard the execution, process, safety, and turn over duty of surgical patients. It can also ensure the execution of each process and steps in safeguarding patient safety. The interdisciplinary, interprofessional, and workflow consolidation process can achieve the goal of each project effectively. We hope this study can be of reference for benefiting our peers.

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Antimicrobial stewardship in Surgical Units of Ferrara University Hospital: how to promote good and safety practices in the antibiotic prescription at discharge. From data to action!

# FORMAGLIO A, ANTONIOLI P, DI GREGORI V, MORGHEN I, DI RUSCIO E

# Introduction

Perioperative antibiotic prophylaxis is an intervention for reducing the incidence of surgical site infections (SSIs) and covers approximately 40-50% of all antibiotics (ATBs) prescriptions in a hospital. Following the National Guidelines, this practice should

be limited to the perioperative period and should not exceed 24 hours after surgical intervention (SI). Nevertheless some surgeons still prolong it after the due time, there is no evidence in preventing SSI. The misuse of this practice could lead to antimicrobial-resistance and to serious infections.

# Purpose/Methods

Aim of study is to evaluate the characteristics of ATB prescribing attitude at discharge, in a sample of surgical patients in surveillance for SSI in the Ferrara University Hospital. We enrolled 461 patients with the digital discharge letter (DDL), operated during last quarter of 2014 (19% of surgical patients in surveillance). The variables analyzed were extracted in part from the computerized operative register OrmaWeb®, partly by DDL stored in the SAP® system and placed in an Excel® spreadsheet for processing.

### Results

The prescription of at least 1 ATB at discharge was 33% (range 0-95%). In DDL, the 90% of prescriptions was without the motivation; the 71% were performed in elective surgery and the 53% in SI class I-clean. Top 5 (by frequency) NHSN Procedure Categories with ATB prescriptions were BRST-breast surgery (31.6%), CHOL-cholecystectomy (15.1%), OTH-interventions on ear-nose-mouth and throat (11.8%), NEPH-nephrectomy (9.2%) and COLO-colon surgery (7.2%). Implanted prosthetic material was used during the SI in 4,6% of antibiotics prescribed SIs.

# Conclusions

The study showed an inappropriate use of ATBs in surgical patients at discharge. So, it became a priority to strengthen the antimicrobial stewardship in Surgical Units by confirming our hospital guidelines and involving all the surgeons in a revision of their practice during a slideshow of these data. The impact of the improvements will be assessed by analyzing the prescription data of the last quarter of 2015. Expected benefits: reduction in prescription, increase of therapy motivation, appropriate use of ATBs.

# Comments

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# Taiwan localization Integrated Conflict Management mode-Dispensing Negligence Medical Disputes

# **RU-FANG WU**

# Introduction

According to the survey of Taiwan Health Reform Foundation in 2007, it is still over 92.8 percent of children using multiple drugs within mix powder.It is a case that a pediatric patient goes to hospital because of clod.According to the prescription,the powder should be white but the patient found one of packs had mixed unidentified yellow powder.Family worried may take unknown medicine and affect health so they decide to sue the Health Bureau of the government for pharmacists dispensing errors.

# Purpose/Methods

Because pharmacist did not really clean the powder machine, the powder machine had some remained powder that comes from last operation and the case alarm Incident Reporting System. According to Severity Assessment Codes analyze, the system activated the Mediate Medical Dispute and Medical Malpractice Care Team. Taiwan localization Integrated Conflict Management are performed following mechanisms: Facts behavior analysis and evidence , Learning From Errors: Root Cause Analysis , ethical consultation, legal consultation, care patient and care hospital employees, Mediator, Litigation ready, mass media management , information and public relations.

# Results

Base on the model, when the medical dispute happens, hospitals can activate the system to process and assist the patient through Medical Mediators. Improving the communication between the hospital and patient can relax a tense atmosphere and achieve a positive medical mediation in hospital. The hospital employees can take care in this kind of situation and can reduce stress focus on working and

# **Conclusions**

Bower AC (1990) indicated that there is one pharmacist who is forced to leave the pharmacy department every 9 month because of Medical Disputes in the UK. To avoid that, the hospitals should provide full support and resource. Furthermore, applying the measures to decrease the Medical Disputes will minimize the Medication Error and medication safety will be improved. It can avoid the waste of medical recourse.

# Comments

The hospital should initiate a caring culture and encouragement instead of blame. Mediate Medical Dispute and Medical Malpractice Care Team can lead the corporation across the department. The employees can only focus on working if a positive relationship is established between the hospitals and patients. A win-win situation can be created.

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Kaohsiung Municipal United Hospital No.976, Zhonghua 1st Rd., Gushan Dist, 80455 Kaohsiung, TWN wdoris0110@gmail.com Patient Safety Reporting and Safe Medication Practices in Chinese Medicine Pharmacy - Experience of a Teaching Hospital in Northern Taiwan

# SHIH Po-Jen, WANG Wen-Yen

### Introduction

Chinese medicine is a common resource in healthcare. Its demand is expanding and it is closely related to the daily lives of the public. The majority of Chinese medicine is available in the forms of fine granules or powders, and has similar names, colors, and appearances hence dispensing errors can be difficult to detect. To ensure safe medication practices, pharmacists must be vigilant. Meanwhile, introducing systemic management can alleviate the workload related to dispensing for pharmacists and improve dispensing accuracy.

# Purpose/Methods

A descriptive analysis was performed on the cases lodged by the Chinese medicine pharmacists in a teaching hospital in northern Taiwan in the patient safety reporting system from the period between 2014 and June, 2015.

#### Results

653 medication safety events were reported. Among these, 68 (10.41%) were related to Chinese medicine. Among the reported cases, the majority (48 cases; 70.59%) were aged between 19 and 64. Regarding cause of event, dose error was most frequently reported (25 cases; 36.76%), followed by duplicated doses (22 cases; 32.35%). Dose error was more prevalent for single or compound preparation and concentrated herbal extracts (e.g. compound preparation TSANG ERH SAN extract pulveres and single preparation CANG ER ZI extract pulveres).

# Conclusions

Using the Electric Barcode Check System to detect error effectively reduces item error, dose omission, and duplicated doses. However, prescription assessment is largely depended on the expertise and experience of the pharmacists. Furthermore, the added reviewing functions to the check system, including dose reading and patient verification, assist in improving healthcare quality and patient safety.

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# The Management of Controlled Drugs and Quality Improvement

# CHEN Sih-Hua, YAO Man -Lih, CHEN Chih-Fang, LEE Wei-Ying

# Introduction

In the stereotype of dispensing pattern, when fills a prescription for controlled drugs, we record the date of prescription, the

quantity of medicine, enumerate prescription and pharmacist initials by manual. The rate of careless mistake can't avoid even double confirm the dispensing process above two experience specialist.

# Purpose/Methods

Purpose: Equivalent with inventory account and dispensing data. Methods: The project was conducted by quality control circle (QCC) campaign at a medical center of Taiwan. The time we calculate by seconds. The percentage of tangible and intangible achievement will be revealed separately.

## Results

After discussed and PDCA Deming cycle, an electronic medication system linked with barcode technology was innovated. The visible outcome of QCC illustrate sharply shorten the time of dispensing up to 253.6%±94.8%. For medication administration, the inventory between account and physical were reached 100%. Beneficially, patients save more than 24% time of waiting when we do this project.

# **Conclusions**

Quality control circle not just only simplify the dispensing process, but also make account agree with physical inventory. Meantime, through this agenda, it will fulfill our satisfaction for working, improve pharmaceutical care quality and standard of international competition.

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# Developing Domestic Health Care Service base on the Core Value of "SHARE"

# HSU Tzu-Chuan, HUANG Hui-Ting, CHUO Ying-Hsiang

# Introduction

To provide patients and their families with humanized holistic patient care, our hospital adopts SHARE (S: Sense people's needs before they ask; H: Help each other out; A: Acknowledge people's feelings; R: Respect the dignity and privacy of others; E: Explain what's happening) as the core value of patient care. In addition to assisting the nursing staff in applying SHARE on clinical practice and offering patients individualized care, our hospital also aims to promote this SHARE-based care system to all medical institutions in Taiwan, establishing a care culture in Taiwan that is truly patient-oriented.

# Purpose/Methods

The objective of this study was to document both nursing staff's experience regarding clinical patient care and patients' opinions of this care during hospitalization to integrate the perspectives of nurses and patients, and eventually develop Taiwan-localized SHARE-based patient care, which can also serve as a reference for nursing education. This study applied a qualitative approach, and the interviewees were volunteers comprised of 16 nurses and 12 patients from two hospitals in Taiwan, one public and another private. A total of 12 in-depth interviews and two focus

group interviews were administered; each lasted 30 to 60 minutes. The interview audio recordings were converted into transcripts, and conceptual coding were performed according to the research questions and references. The research personnel then organized, categorized, and discussed the concepts as well as analyzed how the categories were associated with one another.

### Results

Integrating and analyzing the perspectives of the nurses and patients on localized SHARE-based care revealed the following localized care behaviors in each category: (i.e., sensing people's needs before they ask) greeting patients sincerely, sensitive observation, spontaneous bedside visit, and willing listening. "H" (i.e., assisting one another) meeting patients' needs on time, providing care at regular time, and using resources for problemsolving. "A" (i.e., acknowledging people's feelings) empathizing with what patients feel, using a friendly tone of voice, acting prudently, providing positive support, and amicably interacting. "R" (i.e., respecting the dignity and privacy of others) preserving patients' dignity and privacy. Finally, "E" (i.e., explaining events) explaining to patients in advance of procedures, patiently offering instruction and explanation, and waiting for patients' questions.

### Conclusions

Patients' experience of care improves when nurses provide care based on the core value of SHARE, especially with conscious patients without mental defect, regardless of their illnesses. By adopting care strategies such as using a friendly tone of voice, possessing proficient nursing care skills, visiting and communicating empathetically with patients, and focusing on the illnesses and symptoms of patients, nursing staff can more consistently provide nursing care for patients. We expect that the localized care scheme proposed in this study not only serves as a reference for nursing care education but also contributes to building a patient care system that satisfies the needs of people in Taiwan.

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# The reporting of adverse events in Home Care: a prospective study

# RUGGERI FEDERICO, BARBERINI MARIANO

# Introduction

Is known as Home Hospitalization exposes patients to a significant risk of adverse events (AES). For several years, our integrated Home Care Service adopted for clinical risk management voluntary and anonymous survey of AES through incident reporting (IR).

# Purpose/Methods

Goals: to collect data related to the reporting of AES with IR tabs in the period 2008-2015, together with the principal measures taken, as a result of the analysis of the risks highlighted by the AES report. According to reports, the health staff identified the criticality of care paths to correct, elaborated with the

multidisciplinary team within the context of a specific training plan.

### Results

From 2008 to 2015 we collected 183 AES report cards, of which 79% are not anonymous. 17 categories of AES have been identified: the most popular are related to drug therapy (29.5%), delay of the provision service (15.6%), airway management (13.8%) and nutritional presidia (12.1%). AES were grouped for effective gravity in accord to a scale ranging from 1 to 8, contained in the same IR tab. All boards are then subjected to a more thorough analysis by an incident report review group (IRRG) based in the health regional centre.

### Conclusions

The analysis of AES must be shared as examines in depth the organizational and managerial factors that may have contributed to the event. The electronic medical record is an handheld computer with a program customized available to the various professionals who follow patients with high load care. Data are sent to the operations centre and analyzed and processed concentrating specialist services in the shortest possible time, reducing hospitalizations by acting promptly, as required by facilitating easy course. The preservation of the system requires that it is translated into changes in care paths, in organizational procedures aimed at improving and optimization of care, patient safety and the reduction of legal disputes.

#### Comments

AES reporting have a key role in improving patient safety, therefore it must be seen as an opportunity for improvement of care, without fear of blame for causing human error.

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# Session P2.11: Apps and other innovations to promote health

A study on the factors influencing the intention of adopting wearable health

# CHANG Rei-Tung, TSENG Wan-Ting, LI Ming-Yi, ROAN Jin-Sheng

# Introduction

A wearable health management device, such as Apple Watch, Sony's SmartBand, an Xiomi's Miband, has been introduced to help people track their daily activities and monitor their physical signals in order to improve their health management effectiveness. A wearable health management system usually includes a cellular phone, a wearable device, and an app software. Although these components are usually not very expensive and some of them are even free of charge, the systems are still not very popular and their functions are not fully utilized. Therefore, an investigation of the factors influencing the

adoption intention of wearable health management system is important to promoting such systems.

# Purpose/Methods

To investigate the factors influencing people's intention of using wearable health management device, a questionnaire was developed and validated before uploaded to Google Forms to recruit respondents. 528 valid responses were collected and the data were then analyzed with structured equation modeling technique. Among the respondents, 68% were male, 84.1% were below 30 years old, 50.3% exercised only once or less every week, and only 39.4% kept records of personal health data.

### Results

The results showed that perceived ease-of—use and perceived usefulness of the devices and the compatibility of the device usage with personal health management style had positive impacts on the attitude toward using it. Attitude toward using the device, together with social norm (i.e., friends and media influence) and perceived behavior control (i.e., the ability to use the device and its embedded health management system and the availability of all the three compatible components), in turn affect the intention of wearing the device and using the system.

### Conclusions

Based on the findings of this study, we suggest the device companies should (1) build more useful functions onto both hardware devices and software apps, and make sure the system is easy to operate in product development; (2) stress on media campaigns and peer marketing in product promotion; (3) make products compatible with competitor's devices.

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# Hindering and Loving: A narrative about carrying on family lineage in a HIV-uninfected female spouse

# YANG Yi-Chun, LEE Yi-Chien, PAI Hui-Wen

# Introduction

Globally, the numbers of HIV-infected patients are increasing year by year. Under the impression of HIV associated stigma, they not only bear the disease burden but also have complicated feeling about how to tell others the fact of HIV infection. It was challenging when these patients faced the issue of carrying on family lineage. HIV infection will have a great impact on family function, so it is important to provide one comprehensive supporting system with physical, mental and spiritual levels.

# Purpose/Methods

By qualitative research method, we investigate the subjective that one female case worried about being infected with HIV and suffered tortures from carrying on family lineage and keeping secrecy about disease status to her families after she was informed that her spouse got infected with HIV. Later she delivered a baby smoothly under the full support of physical, mental and spiritual aspects. The interview was proceeded by

participant observation and semi-structured methods and those data was encoded and analyzed.

#### Results

Several findings were noted in our study. (1) Role-constraint: sex not only played a traditional part of intimate relationship but represented the meaning of carrying on family lineage for females. (2) Self-empowerment: if females could treat their self-existence with optimistic attitudes and emphasize the significance of family, they would accept mutually. (3) Establishment of supporting systems: emotional expressions and release needed to be directed. So, one safe and therapeutic supporting team had great contributions.

### Conclusions

HIV infection will make family function and interaction in a tension, and an arduous task will be accomplished by means of care and hope, mutual tolerance, and re-building of new reactive models. Although HIV hold couples with each other, "respect", "acceptance", and "give a chance" will find a common balance and achieve a birth of one new living. It's an important and long-standing mission to construct a therapeutic and assistant team or platform between HIV-infected patients and their families.

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# The New Generation of Weight Control Intervention-Communication Software Applications

# CHAN Yi-Ting, OUYANG Chung-Mei, YANG Yi-Ling, LEE Chyi-Jiang, HSU Wei-Fang

# Introduction

Although the prevalence of obesity in the world increased day by day, obese patients have weak wills to consult registered dieticians or doctors for a weight-loss plan, or show low compliance about the advices. Communication software applications of mobile phones which play an important role in improving the communication between patients and professionals might be considered to reinforce the willing or the adherence of patients.

# Purpose/Methods

The purpose of this study was to determine the effect of the short-term weight management program through communication software application "LINE" on weight and body composition changes. Seven overweight or obese subjects aged from 28 to 41 years participated in October 2015. The changes of weight and body fat percentage were calculated. Participants joined one nutrition education about food exchange at first. In following 30 days, the dietician gave advices immediately after participants updated photos of their meals.

# Results

The participants (n=7) had a significant (P=0.016) weight loss about 2.2 kg in average, from  $71.8\pm11.7$  kg to  $69.5\pm12.1$  kg. The BMI of all the participants decreased significantly (P=0.012) from  $28.1\pm4.3$  kg/m2 to  $27.2\pm4.6$  kg/m2. Also, the result of body fat

percentage showed a significant (P=0.008) decline from  $34.7 \pm 9.4\%$  to  $33.8 \pm 9.6\%$ .

#### Conclusions

Present study indicates that communication software applications might help obese patients to control their weight and body fat percentage. Professionals can give advices and show their care to the patients, and will not be restricted by time and place. This might be one of the main reasons. But increasing the adherence of diet recommendations will be a challenge for dieticians or other health professionals to face.

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# Connected Health-Promoting Activities With the LINE App

# LEE Yi-Lien, HU Ya-Han

# Introduction

Employees are crucial assets to enterprises. Moreover, healthy employees promote sustainable management in enterprises. Health-promoting activities can effectively improve employee health. Although workplaces are the most cost-effective places to implement health-promoting activities, conventional employee health-promoting activities do not result in high activity participation. We used the network communication function of the smartphone app called LINE to enhance employee participation in health-promoting activities, thereby fostering employee self-management of health.

# Purpose/Methods

We recruited 85 employees who volunteered to participate in health-promoting activities from January 5, 2015, to July 5, 2015. The employees were divided into two groups: a LINE group (n = 45), and an autonomous participation group(n = 35) for prearranged courses and activities. At the conclusion of the activities, the two groups' participation rates, satisfaction levels, and physical fitness-test completion rates were compared.

# Results

The participation rate, physical fitness-test completion rate, and satisfaction toward course arrangement of employees in the LINE group were all at least 95%. The employees in this group also lost approximately 3 kg on average. The employees in the autonomous participation group achieved participation rate, physical fitness completion rate, and satisfaction level of only 75%, and they lost approximately 2 kg on average. These results show that the LINE group interaction had a significant effect on the employees' health-promoting performance.

# Conclusions

LINE has become a novel communication channel that enables employees to interact with and encourage each other at the workplace and outside of work, thereby achieving the goal of health promotion and autonomous management. The app can also be used in various support groups, such as a patient support group, in which the patients can communicate using real-time messages, share information, provide assistance to fellow

patient members through LINE; hence, they can immediately receive various types of help from the group.

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Use the Employee Version of Mobile Hospital APP to Facilitate Employee Work and Communication - a periodical review of the employee version of mobile hospital APP

# XI Xiaolei, FU Lili, XU Hong

# Introduction

Using internet technology to build the employee version of mobile hospital APP to expand the capacity and capability of the current hospital information system and to realize the mobile office function.

# Purpose/Methods

After three-month trial, we are evaluating its effectiveness through survey.

### Results

We are going to upgrade and improve the app based on the result of evaluation to better serve staff's needs.

# Conclusions

According to the results of this survey, we tend to the needs of nurses and administrators to improve their usage and satisfaction of the hospital staff.

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The Effect of "Smart Bedside Service System" in Patient Care.

# CHANG Hui-Mei, CHUANG Su-Jung, HSU Yi-Min, CHEN Li-Ru, HUANG Shu-Min, KAI Chun-Shan

# Introduction

Provide patient-centered care is an important concept in nursing care. Nurse plays the important role at Patient participation, to help the whole medical process smoothly and promote patient self-care behaviors, therefore, designed a patient friendly environment and caring process is very important.

# Purpose/Methods

The purpose of this study is to understand the effect of "Smart Bedside Service System" project, designed by quasi-

experimental. From August to December 2015, applied this system during hospitalization to help patient participation in Medical care process at a medical center, including real time information (medical treatment schedule, medication, nursing instruction), Tip Reminder, My vital signs, discharge planning, a glance call for nursing help Icon etc.. We collected the patients participation rate, satisfaction. The outcome was analyzed by SPSS16.0.

### Results

The results showed that: patients average age is 59.7 y/o (n=214, SD6.7), male 45.8% average 61.8y/o, female 54.2% average 57.8 y/o; satisfy for hospitalization information service increased from 80.8% to 97.6% (Z Value -4.035\*\*\*); for participate in treatment increased from 52.4% to 94.6% (Z Value -4.608\*\*\*); satisfy for medication information was 96.2%; for nursing care increased from 88.8% to 99.6% (Z Value -4.015\*\*\*). The most favorite function is a glance call for nursing help lcon, connect with nurse by i-pad.

### Conclusions

Through the "Smart Bedside Service System" could help clinical nurses improved patients participation in hospitalization, more easier to get treatment-related information, increase patient slef-control during medical care process, and developed self-care skills. It suggest this system should be promoted consistently, to make patient acquire convenient medical-related information and join in part of medical treatment, and have sense of participation, decrease rehospitalization rate, furthermore, raise living quality of patient.

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# Survey on User Interface and Experience for Eldery-Centered Webbased Health Management Service

# PARK Dong-Kyun, JUNG Eun-Young, KANG Hyung-Wook

# Introduction

Aging causes changes in many aspects such as cognitive function, physical ability, personality and behavioral characteristic. This study is to investigate the best user interface to provide the best user experience in a web based elderly centered health management service.

# Purpose/Methods

An online panel survey was conducted to investigate the user interface in a website for elderly health management. The questions in the survey include preference in the necessity of the website, icon and layouts. The survey was collected from 216 people, age 50 to 60.

# Results

The result of the survey can be summarized as follows. In the necessity of the elderly centered website, 71.3% of the respondent answered that they need a website for support health promotion. In the layout of the website, 69% of the

respondents preferred fixed menu on the left side of the screen. In the obesity analysis result layout, 43.5% of respondents preferred layout that provide the more detailed explanation.

### Conclusions

An elderly centered web based health management service should reflect elderly's cognitive and physical characteristics and their requirements. Finally, further researches are required to evaluate physical and cognitive abilities and provide customized user interface.

### Comments

This study was supported by the Senior-friendly Product R&D program funded by the Ministry of Health & Welfare through the Korea Health Industry Development Institute (KHIDI). (HI14C1435)

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# Session P2.12: Promoting tobacco cessation and tobacco-free healthcare

ENSH-Global - 10 years of international activity for tobacco-free healthcare services

# GUNNING Miriam, CHALOM David, GASSER Rudi, KOALICK Susann, LOPEZ VEGA Daniel Jesus, SHU-YING Lo, MUNTEANU Iona, ANN ORiordan

# Introduction

Tobacco use is highly addictive and harms every organ in the body. One in every two smokers will die from a tobacco-related disease. Tobacco users are therefore likely to be high among healthcare services users and will look to health professionals first for help and support. Is this care available and routinely provided? The ENSH-Global Network for Tobacco Free Health Care Services (ENSH-Global) has for the last 10 years sought to facilitate action on tobacco control/prevention within healthcare services globally

# Purpose/Methods

This presentation provides an overview of the ENSH-Global strategy, values principles, and the strategic framework that guides development. It will outline successful development over the past 10 years, the ENSH-Global Standards and the systematic and comprehensive approach offered to healthcare services in the implementation of tobacco-free policies. An approach that places an emphasis on quality tobacco management, a preferred term of use, that is defined as an agreed method of implementing a tobacco-free policy to deliver safe quality care in relation to tobacco.

# Results

ENSH-Global, since its inception in 1999, as a European initiative, has grown into formally constituted network of hospitals and healthcare services under Swiss law in 2015 with 31 registered members in 19 countries worldwide. ENSH-Global promotes a concept that integrates all the relevant and key aspects of tobacco management within healthcare services, in a practical and systematic approach that is in line the FCTC guidelines. In this way, ENSH-Global believes that healthcare service will contribute significantly to the realisation of national obligations under FCTC.

# Conclusions

ENSH-Global seeks to recruit, motivate and guide HC services globally in the implementation of their tobacco management policies, providing members with a global platform to facilitate sharing and exchange of experiences and good practice.

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# An Experience Applying the Transtheoretical Model to Assist

# CHEN Shu-Ling, CHEN Chieh-Fan, HUNG Jui-Lien

# Introduction

.Clinicians are models for healthy behavior for patients, but if a physician is a smoker himself, he knows first-hand the difficulty of quitting and understands that doing so is much easier said than done. The physician who smokes will be worried that his patients will not trust him, and therefore he will not dare to let them know he is trying to quit smoking. On the other hand, the pressure to quit comes from hospital colleagues who think that doctors, since they possess a high level of cognitive ability, ought to be able to quit smoking and persevere with staying tobaccofree once they have endeavored to do so. Moreover, doctors tend to ignore other sources of support when attempting to quit. Therefore, clinicians, in particular, need to choose an optimal time and method to quit smoking.

# Purpose/Methods

This is a case report on the application of the transtheoretical model of behavioral change to a clinician who had been smoking for 20 years. The effects of the developed smoking cessation intervention were investigated and data were collected through personal meetings, communications via the LINE app and e-mail during a smoking cessation counseling program that lasted from March 20th, 2015, to November 30th, 2015. The results of the assessment indicated that the main problem encountered by the subject while quitting was a lack of confidence in his own ability to stop smoking after several previous failed attempts.

# Results

In this report, strategies related to the transtheoretical model were used and counseling was provided during the smoking cessation. These strategies included: tailoring the level of individual support to the subject; the establishment of non-smoking environments; the creation of motivational smoking cessation

placards; reminders delivered via LINE; and requiring the subject to keep a written diary detailing his attempts to quit smoking.

#### Conclusions

In the end, the subject managed to successfully quit smoking. This report serves as a reference for using the transtheoretical model of behavioral change in developing smoking cessation programs.

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# Advocacy for Anti-Smoking through Group Influence

# HUANG Ya-Lun, FANCHIANG Yu-Chen, HUANG Shu-Wen, CHANG Yu-Fang, HSU CHI-CHEN, CHUANG Shu-Ting, CHIEN Sou-Hsin

# Introduction

Cancer is the first leading causes of death among Taiwanese people in the past three decades. Lung cancer ranks as the first leading causes of deaths on Taiwanese cancer patients. Cigarette smoking is well recognized as the primary factor for lung cancer. Taiwanese government has enacted the laws prohibiting smoking in indoor and public places since 2009. The purpose is using group dynamics to promote smoking cessation in the workplace. Results:The "point abstinence rate" was 43%.

# Purpose/Methods

In order to provide easy access to smoking cessation programs for smoking workers, medical workers would hold smoking abstinence programs at workplaces after office hours. It is a 4-week program with each course being 2 to 3 hours. By way of group workshop, program participants announce to quit smoking, share thoughts and opinions, reports and films instead of simply sitting for lectures.

# Results

The results showed that after the 4-week smoking cessation courses the "Reduce smoking rate" and "point abstinence rate" significantly rose. There are 12 and 14 people respectively signed up for the program. At the end of the session, reduce smoking rate turned out to be 85%(22/26) and point abstinence rate 43%(11/26). Point abstinence rate after three months is 35%(9/35). The overall level of satisfaction is 92%.

# Conclusions

Using of group influence can improve the success rate of reduction and cessation of smoking. However, the studies also pointed out that as time elapses the effects of smoking cessation would reduce. Thus, the workplace managers will need to continually promote smoking cessation activities in order to maintain a smoking-free environment.

# **Comments**

Using of group influence can improve the success rate of reduction and cessation of smoking. Smoking cessation programs

organized by successful experiences, we want to continue to hold to quit smoking programs at workplaces or communities to secure people's health.

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# Complex approach to tobacco control in the General University Hospital in Prague

# STEPANKOVA Lenka, KRALIKOVA Eva, BLAHA Milan

# Introduction

Intensive treatment of tobacco dependence is available in the General University Hospital (GUH) since 2005 in the Centre for Tobacco-Dependent (CTD). Except of this, since GUH joined the ENSH and HPH networks in 2010, many other activities were carried out to lower actually high proportion of smokers among GUH patients (31%), nurses (41%) and doctors (17%).

# Purpose/Methods

Description of GUH activities in frame of the ENSH/HPH programme. CTD outcomes: CO-validated 12-months abstinence of 4,355 patients in intensive tobacco dependence treatment programme, from them 3,368 with complete record. Factors connected with the successful treatment in frame of the GUH.

# Results

At GUH: posters offering smoking cessation, systematic education of nurses in brief intervention, pocket cards with 5As scheme and guidelines are distributed. A record included in the nursing documentation since 9/2015. At CTD, 38.8% (1,307/3,368) of patients passing the intervention were abstinent after 12 months follow-up period (9.9% of those without intervention), 6 visits at mean. Pharmacotherapy (nicotine, varenicline, bupropion) increased the success: 44.2% versus 16.1% without it. Since 9/2015 the GUH management is smoke-free, since 1/2016 the whole hospital.

# Conclusions

Systematic approach to the tobacco control (staff education in providing a brief intervention, leaflets, information posters) and intensive treatment of tobacco dependence including intervention and long-term pharmacotherapy use is effective for patients and also for staff of the GUH

# Comments

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# Used Five Action Areas for Health Promotion to Increase the Implementation rate of Tobacco Control in Hospital

# YI-LIN Su, NUAN-TING Huang, CHAO-CHIEH Cheng, HSIU Lu, YING-HSIEN Chung, YU-CHIN Lee

### Introduction

Tobacco use is a major preventable cause of premature death and disease. Around 40% of men in Taiwan are smokers, resulting in over 18,000 deaths from tobacco related diseases each year. Forty smokers tried to quit smoking but failed in the past year. The hospital has the responsibility and the function of promoting the tobacco control.

# Purpose/Methods

The aim of this program was to carry out these policies. The overall aim was to develop a health promotion model for antismoking that could then be expanded to other hospitals. According to the WHO Ottawa Charter for Health Promotion, there are five key areas for health promotion, these are building healthy public policy, creating supportive environments, strengthening community action, developing personal skills and reorientation of the health services.

# Results

The results of this project is smoking behavior login rate 80.6%; smoking cessation referral rate 10%; completion rate of tobacco control training 93.8%; quit rates 32%.

# Conclusions

Based on the results of this program, it is suggested that such steps be taken at once so that by investing in health promotion, community health is improved.

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# Being forced to smoking cessation in connection to surgery - experiences from the smokers' perspective

# **ÅKESSON** Eva

# Introduction

The survey was conducted in Kronoberg County, Sweden. It was conducted in line with Kronoberg county decision on new guidelines for a smoke free surgery. The study aimed at finding out what patients thought about the health care staff demanding them to stop smoking before and after operation. Health care staff forcing patients into smoking cessation in association with surgery is unusual. The study aimed to investigate what the patients thought about these requirements.

# Purpose/Methods

The survey focused on the patients' feeling of being forced to quit smoking, how the requirements were presented by the medical staff and finally their experience of being smoke-free. The study was conducted with a qualitative approach. The interviews were based on semi-structured questions and analyzed through a qualitative content analysis. Three nurses, specially trained in tobacco cessation, were involved in finding the patients for the study. The target group was people who had stopped smoking before and after surgery.

# **Results**

The participants' first reaction to the information that they ought to stop smoking in order to be accepted into surgery was anger and the urge of refusing to stop smoking. The results underlined the importance of accurate and clear information about the reason why they had to quit smoking. Being offered help and support in the process was also highly appreciated by the participants. Several of the participants described that they never would have stopped smoking without these requirements.

# Conclusions

Patient engagement and partnership is important. If the patient receive appropriate information about why the requirement is requested they are willing to do almost anything to get the operation done. Smoking cessation was helpful and the experience of all participants was that it was easier to quit smoking then they thought. This is a question of patient safety. It's important that the message from the health care professionals are clear and that the causes behind the requirement are clearly described.

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# The effectiveness of health education of patients quit Discussion

# LIN Mine-Kuei, CHENG Su-Fen, HUANG Meei-Jyhi, WU Chia-Yu, YANG Mei-Feng, SU Chiou-Ling, WU Su-Chin, HSUEH Kuang-Chieh, CHENG Jin-Shiung

# Introduction

In Taiwan guit rates compared with Europe, the United States are lower smoking affect people's health and life, the sooner quit smoking more conducive to good health and survival years. Early smoking cessation led by clinicians to drug treatment; outpatient nurses rarely accept the cessation training in, at most only a brief verbal advice and encouragement, the Ministry of Health and Welfare in 101 years in September launched the "implementation of the second generation of smoking cessation treatment pilot plan ", the door, emergency and inpatient smoking cessation treatment are included in applicable object put into nursing manpower involved in smoking cessation training courses. When hospital patients and their families would be more concerned about the health issues involved in this case patients are usually willing to quit consultative higher; referrals through links with the integration of electronic medical records of hospital resources, in ward against ward unit smokers face to

face manner smoking cessation consultation health education, can have more time to visit and many times, so that smokers understand the benefits of quitting smoking and the harmful effects of the learning process of withdrawal symptoms, adjust living habits and smoking cessation face pressure to improve smoking cessation willingness to reduce the harmful effects of tobacco on smokers and passive smokers of health damage.

# Purpose/Methods

Purpose By quitting smoking health education intervention, providing hospitalized patients about smoking cessation education awareness and care and support to enhance motivation to quit, quitting of success and maintained. Method Initially each ward unit first outreach cessation policy and purpose to strengthen the ward nurse cognition, understanding and assistance by the ward nurse primary care referral hospital electronic information integration, providing care division can quickly organize consultative smokers visit list, the ward unit for smokers, providing individual consultative one, depending on the stage of smokers and demand, provide individual sexual awareness education, lifestyle adjustment, withdrawal symptoms, stress management and diet and sports and other topics consultative and smoking cessation manual, if smokers have quit difficult circumstances, need medication, they will assist referring physicians and provide medication guide. The first consultative visit takes about 20-30 minutes, during hospitalization, about 1-3 days visit 1, consultative takes about 5-10 minutes. In three months, six months and one year after the telephone interviews, track cessation outcome.

### Results

2013 Achievements: health education after three months the number of visits received a total of 147 cases, excluding medication, unable to contact telephone number and the number of deaths, a total of 131 people. Three months the number of telephone interviews 56 people quit smoking successfully, the success rate of 42.7%; six months the number of successfully quitting telephone interview 43 people, the success rate of 32.82%, 1-year the number of successfully quitting telephone interview 19 people, the success rate of 14.50%. Hospitalized smokers concerned about health issues and their families a high level, then the medical staff of the firm attitude of quitting, continuing care and support can improve smokers' willingness to quit.

# Conclusions

The health hazards of cigarette smokers only, as well as their friends and relatives around, every country is trying to solve the problem. Quitting smoking is the only way to solve. Full-time teachers quit Wei professional background and experience in clinical practice, for a variety of needs and problems of hospitalized smokers, can provide consultation and support multiple and time, hoping to improve quit rates. Clinically, the most intimate contact with hospitalized patients are nurses, but clinical nurses busy, unable to provide smoking cessation consultation; but still in need of medical personnel have a consistent and firm attitude to support smoking cessation and promoting public health, free of smoke damage.

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Kaohsiung Veterans General Hospital No.386, Dazhong 1st Rd., Zuoying Dist, 813 Kaohsiung, TWN ssfcheng@vghks.gov.tw Positive outcomes after implementing tobacco-free program with standardized application of Electronic Health Record system and consultation system at a tertiary medical center in Central Taiwan

# CHIANG Hui-Fen, LIN Wen-Yuan, YANG Gloria, LIN Chih-Hsueh, LIU Chiu-Shong

# Introduction

Smoking-related diseases accounts for approximately 28 thousand death per year in Taiwan. Since 2011, many hospitals have committed themselves in the promotion of tobacco- free environment. We would like to share our results of the installation of the tobacco-free program at our hospital. In this report, we focus on the integration of smoking cessation service in our EHR (electronic health records) system, in the outpatient clinic setting, and the establishment of a standardized system of inpatient consultation.

# Purpose/Methods

The purpose of implementing the tobacco-free program was to increase the smoking cessation percentage and success rate. Physicians and nurses were required to document smoking habits of all patients in the EHR. Smokers were given smoking cessation consultations. Those who were willing to quit smoking were referred to the smoking cessation clinic. A protocol for inpatient departments had been set so that smokers with coronary artery disease and myocardial infarction were routinely visited by physicians for bedside smoking cessation consults.

# Results

The number of people who visited our smoking cessation clinic were 171, 332, 401, and 626 from years 2012 to 2015. Compared with the control years 2008 through 2011, which averaged a 69.5 people visiting per year, there were 2.5, 4.8, 5.8, and 9.0-fold increases in people visiting the smoking cessation clinic. The rates of success at 6 months were between 26 and 33 percent during the years 2012 to 2015.

# Conclusions

Most of smokers are not ready or unwilling to quit smoking due to a combination of social influences, nicotine dependence, psychological dependence and poor health awareness. Our result indicated that identifying smokers via EHR and actively targeting high cardiovascular risk patient, who have higher priorities and incentives to quit smoking, is an effective strategy that can increased the number of smoking patients who seek smoking cessation services and improve the rate of successful smoking cessation.

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# The Association of Smoking and Metabolic Syndrome on Cardiovascular Risk among Men in South Korea

# KIM Suyoung, NAH Eun-hee, CHAI Jong-Yil

#### Introduction

Smoking is one of the modifiable risk factors for cardiovascular disease(CVD) and is related to insulin resistance. Metabolic syndrome(Mets) is also an importance risk factor for CVD and diabetes. It's possible to have interaction between smoking and Mets on CVD. Additionally, studies have shown that there is a dose-response relationship between CVD and smoking consumption(SC) with or without Mets. However, in investigating SC, these studies haven't distinguished former smokers from current smokers or have been limited to current smokers.

# Purpose/Methods

We identified the role of Mets in increasing risk for CVD according to smoking status and consumption level. We have cross-sectional data of 5,103 Korean men aged over 20 years, who underwent health check-ups including carotid ultrasonography in 2012. The CVD was defined as abnormal carotid intima-media thickness(CIMT) and carotid plaque(CP). Using multivariate logistic regression analysis, the risks for CVD according to SC were examined by the presence of Mets defined as modified NCEP-ATP IIIcriteria.

# Results

Mets was more prevalent in former(29.7%) and current(27.8%) than never smoker and CVD was more prevalent in former smoker(CIMT 68.4%, CP 52.4%) than the others. The positive relationship between smoking and Mets was clear when SC was ≥20pack-year(P<.0001). And there was a manifest dosedependent relationship between SC and CVD especially the risk of CP(all P<.005). Odds ratios of CIMT and CP for individuals without Mets were increased according to SC in former or current smokers by adjusted age, BMI, LDL-cholesterol.

# **Conclusions**

The former or current smoking status and high level of SC were related with Mets and CVD in men. And smoking was associated with increased CVD partially independent of Mets. Therefore properly balanced dietary and the increase of physical activity should be contained in smoking cessation program to reduce CVD caused by insulin resistance which is continued after smoking cessation.

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The Study of Smoking Cessation Effectiveness of Hospital Smoking Patients in Taiwan

# HSU Mei-Ying, HUANG Yu-Hui, PAI Hui-Wen

# Introduction

The Health Promotion Administration of Taiwan initiated the second generation pilot project on smoking cessation in order to reduce the health and environment hazards caused by the smokers' smoking cigarette. For reducing the discomfort in the process of smoking cessation and enhance the motivation, this project provides medications therapy and professional support and care for patients in need of smoking cessation not only in outpatient, inpatient, emergency, but also in the community.

# Purpose/Methods

The purpose of this study was to investigate the effectiveness of smoking cessation after patients receiving medication therapy and health education in the project initiated by the Health Promotion Administration. In 2014, there were 254 patients participated this project in a regional hospital. The participants received one week, three months, and six months telephone interview and smoking behavior records. We performed the descriptive analysis of the collected data using SPSS 20.

### Results

The major participants came from outpatient, yet the inpatient source represented 30%. Eighty percent of participants had over 15 years of smoking history. And Seventy-five percent of participants consumed over 20 cigarettes each day. Regarding to medication therapy, 69% received Champix tablet, 21% received Nicotinell TTS, and 10% received both. The effectiveness of point abstinence rate was 26%. Thirty-seven percent of participants had over 10 cigarettes reduction in daily consumption. Yet, 24% of participants had no smoking behavior change.

# Conclusions

Study results showed the hospitalized patients had stronger motivation to quit smoking caused by disease problems. We found the behavior change significant during hospitalization. It is worth to promote the patient to quit smoke. Although the participants received medications and stop smoking patch, still there were many participants did not succeed for having insufficient willpower. Beside the medication therapy, the deepened social support and the breaking of addiction-behavior bondage still needs further study and develop.

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Effectiveness of Intervention of Smoking Cessation Health Education for Inpatients at a Certain Medical Center

LIN Li-Ying, KU Yan-Chiou, JEANG Shiow-Rong, HSU Hsing Yu, CHENG Jin Shiung

# Introduction

Smoking cessation has a significant benefit to the improvement of health and reduction of incidence of chronic or acute diseases. Hospitals' implementation of intervention of smoking cessation program can help patients develop a complete treatment program and continue providing support and follow-up. This study intends to investigate the effectiveness of nursing personnel's implementation of 6-month intervention of health education for smoking patients during hospitalization at a certain medical center.

# Purpose/Methods

To investigate the effectiveness of nursing personnel's implementation of smoking cessation health education for smoking patients during hospitalization at a certain medical center in the southern Taiwan. During the follow-up process, this study used the first outpatient smoking cessation of patients as the baseline, and performed telephone interviews at Month 3 and Month 6 to assess the effectiveness of maintenance of smoking cessation. This study used retrospective analysis to analyze the electronic medical records of inpatients from January 31, 2015 to June 30, 2015. This study enrolled inpatients over the age of 18 who smoked at least 10 cigarettes a day as the subjects for analysis. The intervention strategy was nursing personnel's implementation of "hospitalization nursing assessment" to ask patients about their smoking history and level of smoking addiction and record them. Patients who were willing to quit smoking were provided with "smoking cessation" nursing plan. The system directly connected smoking cessation case managers to enroll the subjects, and implemented smoking cessation health education during hospitalization. After the patients were discharged from the hospital, this study performed telephone interviews to assess the effectiveness of smoking cessation at Month 3 and Month 6.

# Results

A total of 1,609 inpatients met the inclusion criteria, and a total of 683 patients were willing quit smoking and receive health education (42.5%) (683/1609). The statistics in December 2015 showed that, 73.6% (503/683) of patients maintained smoking cessation for 3 months, and 61.1% (417/683) of them maintained it for 6 months. The smoking cessation success rate at Month 3 and Month 6 was 31.2% (503/1609) and 25.9% (417/1609), respectively.

# **Conclusions**

Offering smoking cessation counseling to all hospitalized smokers is effective as long as supportive contacts continue for more than 1 month after discharge. The effectiveness of intervention of smoking cessation health education during hospitalization was good.

# Comments

It is advised to implement more smoking cessation health education activities in the future, such as enhancing motivation, reminding patients of the disadvantages of smoking, and providing alleviation of withdrawal symptoms and first-line medication treatment, to create a high-quality smokeless living environment.

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# The effectiveness of different smoke cessation treatment curse in psychiatric out patient

# SHEN Shu-Hua

# Introduction

The purpose of this study was to compare the Co value among 1 to 6 smoking cessation treatment courses, the change of smoking amount and nicotine addiction degree, understanding the long-term effectiveness of smoking cessation, and as the implementation reference of smoking cessation assistance for psychiatric patients in the future.

# Purpose/Methods

In this cohort study, 105 subjects were the psychiatric patients who continued receiving smoking cessation service allowance in 2012, 2013 and 2014. Each person treatment course up to six times, at least once. In Co value and cigarette amount, each course intends to track eight times. In the nicotine addiction degree, each course only survey one time on the first.

#### Results

The study received a total of 105 cases, 59.0% were hospitalized patients, 84.8 % male, 52.5% had high school and college education, average age was 41.35 old; the average smoking year was 20.94 years. 59% smoker were high nicotine addiction degree. In regression analysis, the first time to participate the smoking cessation OPD, the smoking cigarettes amounts were higher than the 8th OPD. The results showed no significant difference in the interaction of statistically.

# **Conclusions**

Through smoking cessation service, in the average number of CO value show a downward curve and have reached significant differences, the first course of smoking amount ( $\beta$  = 7.7; SE = 2.1; p = .000); the second course smoking amount ( $\beta$  = 4.1; SE = 1.2; p = .001), the CO value in first course ( $\beta$  = 6.9; SE = 2.4; p = .005); the CO value in second course ( $\beta$  = 6.6; SE = 2.1; p = .002).

# Comments

The trend analysis and statistical inference can be learned for two consecutive years to participate in its effectiveness compared to participate again next year relatively good recommendation can be tracked continuously fed compare the effectiveness of different succession and accession.

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The Effectiveness of Implementing Mindfulness Training in Outpatient Smoking Cessation Group

CHANG Shu-min, TSAI Yu-chun, SHEN Shu-Hua

### Introduction

The purpose of this study was to explore the effectiveness of implementing mindfulness training in outpatient smoking cessation group, understanding the improvement degree of smoking amount, carbon monoxide (CO) concentrations, nicotine dependence (FTND), cessation cognition and attitude

# Purpose/Methods

10 Subjects were the outpatient smokers in a psychiatric hospital in southern of Taiwan, patients participated the group 90 minutes in once a week total 6 weeks from 20 July to 24 August 2015. Mindfulness training applied to help patient in quitting smoking. Assessment tools included Fagerstrom Test for Nicotine Dependence (FTND) scale, weekly smoking amount; smoking cessation cognition and attitude questionnaire.

## Results

The result showed that 10 subjects diagnosed of schizophrenia, average 15 smoking years, 3 subjects success to quit smoking, 5 patients down to a low addiction degree, only 2 moderate degrees, daily smoking amount decreased from 25.5 to 6.2, was reduced 75.6%. Carbon monoxide (CO) concentration reduced from 12.3ppm to 2.8ppm, reduced 77.2%. Nicotine addiction degree (FTND) reduced from 8 to 2.2 points, smoking cessation cognition increased from 2.83 to 4.44; the attitude increased from 2.31 to 4.07.

# **Conclusions**

The result found smoking cessation success factors related to self-control ability,to the use of "mindfulness" training can enhance contemplation of patients found in self-control, to have a significant impact on the effectiveness of smoking cessation, also verify Tang (2013) and other mindfulness training can reduce 60 % smoking rate, worthy of clinical smoking cessation treatment method in.

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# The effectiveness of Smoking Cessation Program in Psychiatric Day Care Service

# SUN Hsiu-Fang, CHEN Shue-Fen, SHEN Shu-Hua

# Introduction

Tobacco hazards directly threatened the lives of human being, and there will be more than 800 million people die each year from smoking-related diseases. Smoking rate of psychiatric patients are higher than the average person, and ineffective smoking cessation due to the mental illness with poor cognitive function.

# **Purpose/Methods**

The purpose of this study was to understand the effectiveness and process of smoking cessation program in psychiatric day care service. This cross-sectional research design recruited from June to December 2015, subjects were 30 psychiatric patients with smoking history at day care service of psychiatric center in

southern of Taiwan. 16 patient participated 12 section smoking cessation group, the other 14 received regular treatment. Data collecting by a self self-designed questionnaires, group discussions and individual interviews.

#### Results

The result showed that more active attitude to participate in smoking cessation groups increased 9.1%, resistance of quitting smoking has decreased 20.4%, fear of weight gain after quitting has decreased 49.8%, understanding that do the exercise everyday can help smoking cessation has increased 51.1%, believed that Nicotinell Chewing were effective for smoking cessation has increased 43.5%, to change the stress relieve method has increased 15.4%.

## Conclusions

Smoking cessation is difficult to implementation for psychiatric patient because of patient often afraid to quit smoking. Nurses could apply the group therapy skills in smoking cessation group, so that patient could understand the importance and increase motivation to quit smoking reduce smoking behavior after group intervention.

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The Association between Smoke-Free Environment and Smoking Cessation and Chronic Conditions among Employees in a Health Promoting Hospital in Seoul, Korea

# KIM Kue Sook, CHOO Daniel, LEE Yu Jeong, LEE Woo Hyung, LEE Ji Hong, LE Lai

# Introduction

As a great number of population are suffering from multiple chronic conditions and people tend to live longer, national health expenditure has rapidly increased in recent years. Health policymakers have emphasized the importance of prevention-based health promotion and management. With the WHO's Ottawa Declaration, the concept of health promoting hospital has implemented. Seoul Metropolitan Dongbu Hospital has been able to carry out several health promoting projects by employing its unique status as a tertiary public hospital. One of such projects is to have a smoke-free environment and to provide various smoking cessation programs to hospital employees.

# Purpose/Methods

From 2010 to 2012, I collected data on employees' participation in smoking cessation education programs, and physical examination information including chronic conditions that are related to smoking. By employing statistical methods, I will analyze 1) the association between smoke-free environment and smoking cessation, and 2) the effect of participation in smoking cessation programs on the numbers of chronic conditions among employees.

#### Results

In the beginning of the project, 15.4 percent of employees were smokers. The hospital provided the smoking cessation class once to all employees and then continued to provide to those who desire. A total of 35 employees attended 8 times. Among those, four employees (12 percent) did not smoke for three months.

#### Conclusions

With the declaration of smoke-free environment, almost no smoking can be seen within the hospital. Smoke-free environment also supported those employees who fail to quit smoking. These days smoking is not only a personal health issue but also an addictive illness. The hospital, as a health promotion hospital, has an interest in non-smoking, help smokers to quit smoking more easily, and steadily increasing the number of non-smoking population by publicizing the negative consequences of smoking and help to promote health status.

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Health promotion by the internal start - the effectiveness of staff promote smoking cessation classes

#### CHENG Su-Fen, HUANG Meei-Jyhi, WU Chia-Yu, HSUEH Kuang-Chieh, CHENG Jin-Shiung

#### Introduction

Tobacco Control after the implementation of the new law, every 5-6 employees in the workplace is still a non-smoking (18.2%), exposure to secondhand smoke in the workplace, although the rate of four to six steep drop (from 26% to 14%), but every 6-7 employees who are still exposed to secondhand smoke; and now the company began to have joined the smoke-free workplace, smoking is not only to promote health, but also one of the necessary conditions for the maintenance of work and personal safety, and to avoid the onset of the work due to smoking brings distraction, lethargic working Trader errors cause harm. Promote workplace are key reasons to quit smoking, quit smoking support in the workplace is key to ensuring the success of quitting, not only give employees a common goal, mutual encouragement to each other, now the workplace of the limit tobacco or smoking policy for the healthy trend of the next era of added nonworkplace smoking ranks, not only to achieve enhance corporate reputation and image enhancement; and pay attention to the health of employees of the enterprise, also is eligible for jobseekers of all ages, will help attract more talented people. Therefore, it is imperative to promote employees to quit smoking and health promotion activities should be promoted.

#### Purpose/Methods

Purpose By pushing employees to quit smoking classes, provide smoking staff, care and community support for the smoking cessation education awareness, enhance their intention to quit, quit smoking successfully achieve and maintain. Method Quitting smoking is a challenging task, especially when there is no one to help. After attending smoking cessation classes, by promoting

the organization of strength, it is much easier to quit smoking. Court apply in 104 years 2 echelon employees quit smoking classes, every echelon of class time a month, once a week on a class, each class two hours, Cai freedom Registration attract students. In accordance with the curriculum in the face of different periods and different difficulty quitting designed to start from the first week of physical harm by smoking and smoking cessation drug selection and use, with lung age testing, participants raised the motivation to quit smoking, reduce smoking cessation difficult, like smoking process, the second week of treatment withdrawal discomfort, increase selfconfidence to guit smoking, the third week of the emphasis is on nutrition during the smoking cessation, exercise and smoking cessation techniques refuse tobacco, a healthy new habit to control their weight, pressure Processing and confidence with people, the fourth week of the emphasis is on the prevention of recurrence and trainees quit smoking experience to share, with the power to help stop smoking groups. In addition, each student courses are arranged in vivo measurement of body weight change and carbon monoxide during smoking cessation courses guard by the dedicated teacher ready to provide health education students face to face visits.

#### Results

In 2015 were held two echelon employees quit smoking classes, a total of 19 employees participated, in addition to smoking cessation classes once a week courses, during classes dedicated teachers quit guard according to the individual needs of the students face to face visits 66 times the number of health education . Tracking students after school three-month cessation success rates 2 echelon averaged about 26%, the results with other hospitals in the country to implement the outcome of smoking cessation classes is not far off. But it is worth mentioning that the course design is based on staff as the main target, hoping the healthy internal customers - employees of the push to start, and then extended to the health of the promotion of external customers. Therefore, after the end of the course to a fifth method Liker's student satisfaction survey, the results of more than 5 points satisfaction 2 echelon average up to 98%.

#### Conclusions

The health hazards of cigarette smokers only, as well as their friends and relatives around, every country is trying to solve the problem. Quitting smoking is the only way to solve. Employees is the company's assets, health workers in order to make the company's business booming, especially in the medical workplace, to hospital for treatment for the patient's health promotion, in order to be more convincing. Smoking cessation classes have professional and experienced physicians in clinical practice and dedicated teachers quit quitting process Methodist assist the various needs of smokers and issues that can provide multiple and time of consultation, more importantly, by support group members, more can support successful quitting. Therefore, smoking cessation classes of employees are worth promoting ongoing.

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# Effectiveness of a Large-scale Smoking Cessation Promotion Activity in a Medical Center in Northern Taiwan from 2012-2014

#### HUANG Wei-Hsin, CHANG Betty Chia-Chen, HSU Hsin-Yin, HWANG Lee-Ching

#### Introduction

Health promotion activity can help spread ideas of preventive medicine to the public, and also encourage the public to take immediate action. The purpose of our study is to evaluate the effectiveness of a large-scale smoking cessation promotion activity held for three consecutive years at a medical center in Northern Taiwan.

#### Purpose/Methods

A medical center in Northern Taiwan held a week-long smoking cessation promotion event around May 31st of each year since 1997. Our study collected the data of the participants who were referred to smoking cessation clinics from the event from 2012-2014, including age, gender, number of cigarettes smoked, numbers of smoking years, nicotine dependence score, carbon monoxide level, number of clinic visits, and further analyzed the three-month and six-month point success rates of smoking cessation.

#### Results

A total of 65 participants were referred to smoking cessation clinics from the event between 2012 and 2014. Participants consisted of 53 males, with average age of 52.8 years, average of 28.2 smoking years, average nicotine dependence score of 5.9, and average carbon monoxide level of 16.9ppm. The three-month and six-month point success rates were 67.7% and 56.9%, respectively, and were higher than three-month and six-month point success rates of 35% and 40% from smoking cessation clinics alone in 2014.

#### **Conclusions**

Our results showed that health promotion activity could indeed influence people's behavior, thus we encourage healthcare workers to continue to hold similar events in the future.

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How hospital practice community smoke-quit solutions by phased mode of behavior change

HUANG Chi-Cheng, FU Tzu-Chen, YEN Jih-Kuei, TSENG Wu-Pin, HUANG Hui Fang, HSUEH Wei Chun

#### Introduction

There are about 4 million populations of smoking in Taiwan and about 18 thousand death of smoking yearly. Our hospital is public with responsibility for public hygiene healthcare of community people. To help community people quit smoke, we analyze smoker to understand their needs. Eventually they accept professional service and treatment to quit smoke successfully by phased mode of behavior change leading-in various solutions. We won Taiwan golden globe prize of "internet authentication of global tobacco-free healthcare service" in 2013~2015.

#### Purpose/Methods

1. No-intention period: make flyers and posters of prevention on tobacco-harm, hold propaganda, radio broadcast. 2. Intention period: provide smoke-quit messages on hospital website, bulletin board, marquee, outpatient schedule and enhance their motives. 3. Preparing period: combine health center and district head of community to enlist smoke-quit trainee and help set their plans. 4. Action period: provide consultation, method/technique of problem solving, referral of hospital outpatient. 5. Maintain period: make booklet by case management consultant and trace by telephone interview in three, six, twelve months.

#### **Results**

1. Train 11 smoke-quit doctors and 24 high-level health education consultants. Perform 22 educational propagandas yearly. Attendants are 2,442, average satisfaction rate is 91.54%.
2. Hold activity of "extinguish smoke for love-family countersigned card", got 258 responses daily. 3. Hold smoke-quit activities in community, refer 618 willing to quit yearly and 17 expectant mothers included. 4. Achievement of offering smoke-quit classes: average CO improvement rate is 86.95%, Volume of tobacco-reduce is 97.5%, successful rate is 78.57%, satisfaction rate of having class is 91.31%.

#### **Conclusions**

The behavior of smoking or smoke-quit is interworked by factors of personal, environment and cultural society. Our team provides different solutions according to motive behavior of smoker in different stages. Except for various classes and activities, we combine commercial circle surrounding hospital to establish tobacco-free environments. Such as tobacco-free shops, tobacco-free taxies, tobacco-free bus stops. We offer smoke-quit related information to help set up supporting environments. We hope the successful smoke-quit rate is raised so as to avoid smoke again.

#### Comments

It seems that clinical intervention by stages in different phases can provide the hospital treatment team one direction and offer different treatment strategies for smoker who quit in different phases. Case intervention by stages can also make smoker who quit more successful. The key to succeed is that our team makes good use of group discussion and demonstrates successful smoker who quit by their own experiences to avoid only one side interaction with no meaning.

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## An analysis of Taipei Wenshan Community tobacco cessation and anti-betel nut chewing campaigns

#### SHIEH Ying-Hua, CHAN Hsiao-Wen, LU Yin-Han, LIU I

#### Introduction

Although Taipei Wenshan Community is an area of high education and socio-economic status; betel nut users among factor workers (especially males between the ages of 35-54) as well as tobacco smokers among adolescents are still high. According to Taiwan Ministry of Health and Welfare, in 2013, adolescent smoking rate had increased by 12%. As a result, it is essential to implement effective tobacco cessation and antibetel nut chewing campaigns in order to create a healthier living environment and lifestyle for residents of Taipei Wenshan Community.

#### Purpose/Methods

Wan Fang Hospital Family Medicine Department, has implemented various campaigns to educate people of the harmful effects of tobacco and betel nut, and to motivate and empower these users to quit for life. These campaigns include holding tobacco cessation/anti-betel nut chewing rallies and putting up slogans and posters at 10 different convenient stores. Eight educational sessions were held at schools; and social media resources such as websites and educational films were set up. Oral cancer screening services and classes were also established to support those who wanted to quit.

#### Results

Our tobacco cessation and anti-betel nut chewing campaigns have significantly increased public awareness towards the harmful effects of tobacco and betel nut use as evident from the number of people responding to our campaign. Furthermore, of the 800 people who participated in oral cancer screening services, 70% of the positive screening cases were referred to specialists. In terms of the tobacco cessation classes, in 2014, the three-month no-smoking success rate was 40% (above the goal set by National Health Department of 33%). In addition, tobacco cessation classes held annually at the Police College had more than 200 students participating each year with positive outcomes.

#### Conclusions

This study showed that the tobacco cessation and anti-betel nut chewing campaigns implemented at Taipei Wenshan Community were effective in building an increased public awareness of the harmful health impact of tobacco and betel nut; contributed to changes in behavior, and helped deal with health issues related to tobacco and betel nut users among the general population. Consequently this strategic framework could be used in other district areas to promote and improve the general health and well-being of their residents.

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Wan Fang Hospital, Taipei Medical University No.111, Sec. 3, Xinglong Rd., Wenshan Dist., Taipei, TWN sugarguitar@hotmail.com Partnerships to Reduce Teen
Tobacco Use in a Junior High School
in Taichung City, Taiwan - Hospitals,
Police Officers, Schools, Parents and
Community Working Together

#### FU Li-Wei

#### Introduction

According to the junior high school students smoking behavior survey conducted by the Health Promotion Administration, Ministry of Health and Welfare (HPA), it showed that the smoking prevalence among junior high students had increased from 7.5% (male 9.7%, female 4.7%) in 2006 to 7.8% (male 10.3%, female 4.9%) in 2008 and 8%(male 11.2%, female 4.2%) in 2010. The smoking rate of male students has been increased gradually while decreasing trend among female students. The smoking initiation among teenagers was often driven by curiosity and peer influence. Moreover, it also accelerated the use of tobacco in the duration of junior high school. To reduce tobacco use among youth in Dongshih District (in Taichung City, Taiwan), an intervention program has been initiated by Dongshih Farmers' Hospital, and the hospital partnered with a local junior high school by setting up a six-month smoking cessation course in the school and regularly inviting health professionals to providing participants with lessons of knowing how to guit the smoking in 2015. There were 30 students either self-motivated or encouraged by teachers to take part in the smoking cessation course. Those students who took part in the course were mostly labelled by teachers as trouble-makers in the school. They often suffered from adjustment problems in the family or emotional instability and resulted in adopting deviant attitudes and behaviors including smoking, violent language, violent behavior, self-abuse etc. However, the school teachers mostly use punishment to stop deviant attitudes and behaviors but the effectiveness was limited. Hence, the intervention program provided with an active and joyful way of partnering with crosssectoral organizations by building up a supportive environment for teenagers to quit the smoking successfully.

#### Purpose/Methods

1. Gaining parental involvement: To reach consensus with parents about the risks of teen tobacco use, we obtained parental agreement to support students reducing smoking at home. 2. Forming a tobacco free network and making a public commitment: A cross-sectoral group was composed of hospital staff, medical professionals, school teachers, parents, community residents and police officers working together to establish the network to assist students reducing smoking at school and community. 3. Rewarding plan: For facilitating students' willingness to take part in the course, a rewarding plan has been initiated by holding a contest of quitting smoking and the school authorities promised to balance the warnings record of the participants when they quit smoking. 4. Health education: Health professionals from hospitals such as physicians, registered nurses, pharmacists, and health counselors provided with a number of knowledgeable courses which emphasized on knowing and understanding diseases, medical care, smoking cessation drugs usage and so forth. Meanwhile, a social worker acted as a counselor for mental support and police officers accounted for explaining the cigarette control laws and other drug-related enforcement. Through multiple courses, the

students learned more about the hazard of tobacco use. 5. School nurses and hospital staff were in charge of tobacco carbon monoxide test every week. By informing students with their record of Carbon Monoxide test, they were able to be aware of their smoking behavior and further decrease the smoking frequency. 6. Smoking hot zone checkup: School chief of administrative division was in charge of checking the smoking hot zone to reduce smoking behavior. 7. Mental Health service: During the implementation of the program, according to the teachers of the quitting smoking participants, since they were unable to smoke at home or school, they were unable to let off their emotional intensity. Therefore, it resulted in student brawl at school. A school worker has provided with counseling at school and referral them to school nurses for follow-up and counseling. 8. United checkup: The school that implemented the invention program united an adjacent school to conduct the checkup by the surrounding neighborhoods to list the smoking hot zones after school. 9. Community smoking hot zone night watch: The school provided police officers with smoking hot zones and police officers patrolled those hot zones at night. Once they found students smoking around those areas, they admonished students and informed school and parents. 10. Tobacco-sale retailers were also the focal point to stop youth from getting tobacco: So, we finally reached an agreement with neighborhood retailers to stop selling students aged under 18 any tobacco.

#### Results

1. Before joining the program, parents only focused on the tobacco law of prohibiting young people under 18 to use tobacco. After the program, parents changed their attitudes about smoking and perceived the hazardous effects of tobacco use on their children's health. 2. By conducting a post program survey, the findings showed that 29% of students have reduced their tobacco use, 25% knew how to quit smoking, 13% felt more energetic in class, and about a quarter of participants even quitted smoking tobacco. 3. Carbon Monoxide test Carbon Monoxide rate 0-4ppm Non-smokers 5-6ppm Light smokers 7-10ppm Smokers 11-15ppm Frequent smokers 16-25ppm Heavy smokers One month before implementing the program 0% 25% 54% 18% 3% Six months later after the program intervention 46% 28% 18% 6% 0% 4. After the program, according to the feedback from teachers, the intervention program does reduce students tobacco use at school, and we also found that students' deviance was suppressed. 5. Through the health education, it built up the trust between teachers and students. Students understood what teachers have taught them before was truly caring for them but not making up facts for administration. 6. By testing Carbon monoxide rate, the positive interactions between students and teachers were increased. 7. After the program, the disposing of cigarette butts has decreased. 8. Owing to the establishment of smoking cessation course for teens, the issue of health promotion has become more noticeable in the community. Consequently, the smoking reduction was not part of daily duty of the police, but now the police officers actively joined the team to convince teens to guit smoking. The hospitals used to focus on the smoking cessation among people above 18, but now the hospitals proactively organized the intervention program in order to support the vouth away from the hazard of tobacco. Tobacco retailers also carried out identification checkup of buyers of tobacco to prevent the youth under 18 to purchase cigarette at convenience stores. The transformation of thoughts and behaviors among the community participants gradually nurtured new community shared values and norms and behavior.

#### Conclusions

The hospital plays a central role in collaborating with parents, schools, community and police officers as an anti-tobacco use network. By using various strategies, such as quitting smoking, counseling, health education and promotion, tips on quitting smoking, rewarding plan to lower the smoking rate among teens, this helped those participants to promote their self-constraint ability successfully. Although the rate of carbon monoxide decreased, there is one more thing which should be mentioned. Three months before the intervention program, we tested the rate of carbon monoxide every week; students might only obey to cut tobacco use in a short period of time under the pressure of parents, school and community. For sustaining the reduction of tobacco use among teens, the program should be sustained and irregularly test the carbon monoxide rate for reminding those participants who are already on the way to tobacco-free life.

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By the hospital into the community - workplace cessation of the effectiveness of health education

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#### Introduction

WHO noted that there are 500 mio. people worldwide each year die from smoking-related diseases, an average of 1 person every 6 seconds due to smoke damage to death. In Taiwan, there are more than 18,000 people each year die from smoking-related diseases, equivalent to 1 every 20 minutes because of smoke damage people lost their lives, the MOHW and the National Health Tobacco Control Office to coordinate and actively promote the smoking cessation treatment services to reduce smoking rates, tobacco products reduce health risks, the implementation of "second generation of smoking cessation treatment and services plan" in the hospital since March 2012 in addition to smoking cessation treatment services, and the promotion of smoke-free hospitals no smoking in the workplace, smoke-free environment in recent years to a more healthpromoting hospital items, with the MOHW National Health genus "medical institution cessation services grant program" was expanded from 104 to provide smoking cessation services, not limited to the medical institutions within. Kaohsiung Health Bureau for the first time requested the Court to assist the community to cooperate workplace smoking cessation services, the smoking cessation services in depth in the workplace to help employees quit smoking in the workplace, build a successful high attendance, smoking cessation success rate of workplace smoking cessation services.

#### Purpose/Methods

Purpose Providing high-quality, high success rate of workplace health services, integrating various units and medical resources,

to provide an effective and convenient conduit for smokers to quit the workplace, the creation of smoke-free work environment fresh, to find their own health and self-confidence. Method 2015 in cooperation with a steel company, were screened out by the company's employees smoking occupational health nurse, the company in line with the public holiday, to encourage employees to freedom Registration attract students. Court quitting team includes physicians, smoking cessation Wei teachers, pharmacists, IT personnel and service company owned occupational health nurse cooperate with each other, we will complete the process according to the sheet cessation services, health education, see the doctor, prescription, payment, lead drug program provide professional staff fluent in workplace smoking cessation services, every echelon hours a month, once a week on a class, each class two hours after the end of the service by the hospital to guit Wei teacher interviews by telephone Tracking statistics 3 the success rate of quitting months and 6 months.

#### Results

The number of people receiving services for the 56 people, three-month success rate of 48.2 percent points to quit, six-month point of quitting success rate of 50%, for the participation of the employees stop smoking services to Liker's quintiles satisfaction surveys, the results of the environment treatment process satisfaction 98.70% service attitude satisfaction 99.00%, the waiting time satisfaction was 94.57%, environmental equipment satisfaction 94.35%.

#### **Conclusions**

Government to help the people in addition to the clinic to quit smoking rates decline, also stepped outside to quit green campus, the military, the workplace of the smoking cessation services, the Court for the implementation of policies to improve the quality of care nationals actively extending the service to the community by the medical institutions to provide quality professional workplace workplace services help employees kick the habit, not only provides professional and medical support can Proximity workplace supervisor, physician and health care professional and caring teachers, community workplace employees make satisfactory quit rates.

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## To promote smoking cessation as the core of Community policy initiatives

#### **CHUANG LI-HSIANG**

#### Introduction

We describe the status of Taiwan and the harmful effects of tobacco statement viable community-smoking plan and execute strategies can enhance the promotion of Tobacco Control of the execution performance of health professionals.

#### Purpose/Methods

According to " ENSH-Global Network for Tobacco Free Healthcare Services " Standard compare results before and after the implementation, and with the questionnaire, 2015.01-11 purposive sampling community Kaohsiung, Taiwan 300 people

for the study, according to empirical statements implement community plans and the implementation of smoke-free content.

#### Results

Computer Active establish patient smoking status alert system, hospital smoking cessation services across sectors and referral procedures, training of professional health education cessation service personnel, for smoking cessation classes and combine resources in the ground, non-smoking environment advocacy can effectively enhance the effectiveness of community people to quit smoking.

#### Conclusions

Taiwan in recent years, lung cancer ranks first cause of cancer deaths, the need to integrate health professional systems, combined with the organization of resources, Tobacco Control to establish a complete network, providing professional smoking cessation services, so that the majority of ex-smokers to get better medical care and support of the system .

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#### Using Community Partnerships to Promote the Effectiveness of Smoking Cessation Groups at Rural Area in Southern of Taiwan

#### TUNG Tzu-Han, WANG Hsueh-Yin, SHEN Shu-Hua, LU Hui-Lan

#### Introduction

Most of people are farmer and live in rural area in southern of Taiwan. Smoking is common traditional culture and social interaction there, so to use partnerships from the local roots and concept, combined community and medical resources to hold smoking cessation classes, listen to the local voice in action on the ground in groups, could enhance the effectiveness of community people to quit smoking, improve community health culture.

#### Purpose/Methods

The hospital had set up health promotion program, and combined with community local health centers to discuss the ways to stop smoking together, and held smoking cessation class from April to June 2015, this education course was once a week smoking cessation program, for a period of eight weeks, the amount of smoke through the subjective and objective measurements stated carbon monoxide tests and questionnaires to collect data, analyze the effectiveness of smoking cessation.

#### Results

Total of 11 male ,average the ages was between 50-60 years, all local people with agricultural workers , the average amount of exhaled carbon monoxide (CO) in the first group before measuring average 15.81ppm, after eight weeks to an average of the measured groups 9.36ppm, overall smoking before

measuring average 17.36 / day, post-test to an average of 8.18 / day, and there is a complete withdrawal.

#### Conclusions

The community partnerships application could enhance the community cohesion between members and community, help to influence the behavior of members to quit smoking and improve social activities, through the members discussion, the community can have a healthy new culture , will take the initiative and urge the smoking cessation of mutual concern and to jointly safeguard the community smoke-free environments and look forward to the future can continue to use community partnerships to improve community health quit smoking culture.

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## Towards tobacco-free school around the health promoting hospital

#### PARK Hyunjoo, LEE Kiheon, CHOI Iksoon

#### Introduction

The smoking rate among middle and high school students dropped from 17.2 percent in 2011 to 11.9% percent in 2015, according to the 2015 Korea Youth Risk Behavior Web-based Survey (KYRBS). But still more than one out of every 10 students smoke and they become long-term smoker as they grew up. Therefore tobacco cessation experts from various fields have to cooperate with each other and help students to quit smoking.

#### Purpose/Methods

It is difficult for the school health teacher alone to help many students quit smoking. The health promoting hospital made relationship between school and public health center and perform anti-smoking education. Public health center acted as a bridge between school and hospital. Hospital organized the expert team for anti-smoking program. The expert team was comprised of doctors of family medicine and nurses. When school health teacher requested anti-smoking education, public health center send hospital's expert team to perform education.

#### Results

School health teacher gathered smoking students. The expert team educated harmful effects of smoking at the level of student's eyes, tested their nicotine dependence and carbon monoxide in exhaled breath and counseled student. If student had willingness to quit smoking, they received counselling in the smoking cessation clinic for free. From April to December, the expert team visited 6 schools. 80 students participated in the education program, 3 students who want to quit smoking had visited hospital steadily.

#### **Conclusions**

Korean government raised the cigarette price with the aim of reducing the current smoking rate. However to quit smoking successfully smokers who are addicted to nicotine need expert support rather than price policy. Towards tobacco-free school and community, the health promoting hospital is planning to visit not only school but also out of school care center.

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Be healthy by whole community!
"Outlook through Smoking
Prevention Class at elementary
schools"

#### NOGUCHI Ai, HASUMA Hideki, SUZUKI Shohei, OHNISHI Akiko, YUUKI Yoshie

#### Introduction

Recently, an environment to promote and advocate non-smoking has gradually been established in Japan, however, current smoking rate of Osaka City is still higher than national standard. In order to reduce the smoking rate of local community, our hospital thought it would be important not only to approach smokers for non-smoking intervention but also to reach children and adolescence to prevent their future smoking. In this report, our effort on Smoking Prevention Class at elementary school is introduced.

#### Purpose/Methods

From January 2012 to December 2015, Smoking Prevention Classes were given at 4 elementary schools for 6th graders. The lectures included education on "tobacco harms on your health" and an exercise program on "how to refuse invitations for smoking". Through written surveys, questions were asked on smoking status of the family and knowledge about cigarette before the class, and afterwards on the greatest thing they had learned from the class and what action they would take in the future

#### Results

For family status, more than half students had smoker parents. For learning experience, many named that tobacco contained a lot of harmful substances and that secondhand smoke was harmful. After the lecture, many students declared to take actions saying they would not smoke in the future, firmly refuse invitations for smoking, or ask smoker family member not to smoke.

#### Conclusions

It is not yet clear whether if children who participated in the Smoking Prevention Class would show a tendency of not smoking in the future; however, according to the post-class survey, many students declared that they would not smoke in the future. Our Smoking Prevention Class activity is planned to be developed further in collaboration with the community, local government, schools and medical/welfare institutions in order to promote community health by decreasing local smoking rate.

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# The Application of Positive Psychological Theory on Tobacco Cessation in Disadvantaged Youth Groups.

#### LIN YU-WEN, WANG WEN-YEN, KAO YUNG-CHI, TSAI SHENG-HUA

#### Introduction

The ability and attitude of positive thinking encourage people to attain healthier and better lifestyle. This study applied the theory and technique of positive psychology to excavate the underlying positive factors in disadvantaged youth groups to promote their positive traits and spirits in a positive institutional environment that supporting them to overcome challenges, to reinforce intrinsic motivation, and to increase health-promoting behaviors.

#### Purpose/Methods

The subjects in this study are disadvantaged youths who reside in institutes. The Seligman's positive psychology is applied to promote what follows: 1.Positive spirits: Health-examinations and oral reconstructions are provided to improve their individual and social development by enhancing their confidences. 2.Positive traits: Establishing the tobacco cessation group to encourage long-term behavioral models, individual knowledge and capabilities, and to inspire them to adopt health-promoting behavior. 3.Positive institute: Hospital is actively involved to construct a supportive institutional environment.

#### Results

In 2015, 28 subjects received health-examinations, 12 were followed-up for abnormalities, and 37 outpatient services provided. 17 subjects received dental treatment and 169 outpatient services were provided. Among the smoked subjects, 13 subjects were referred to case-manager for tobacco cessation educations. Excluding the subjects who left the institute, 7 participants joint the tobacco cessation group. The average pretest and post-test scores were 75-point and 85.75-points respectively. 5 subjects quitted smoking and 2 reduced tobacco use. The success rate is 71.4%

#### **Conclusions**

Learning about health behavior leads to a long-term behavior change. Applying the theory of positive psychology in program design and incorporating bingo games encouraged intellectual curiosity hence promotes motivation for learning. Dental reconstruction improves self-confidence. Creative tobacco cessation programs involving consultation, counseling, and CO examination support self-actualization of tobacco cessation and health-promoting behavior.

#### Comments

The current social protection policies are far from comprehensive. The disadvantaged youth are still facing varying degrees and forms of social rejection in terms of health, self-care, learning, and work, which poses tremendous adversity on their survival and development. Involvement of healthcare institutes in health promotion using theory and viewpoint of positive psychology helps relieve the health-related struggles of these youth and promote equity in healthcare.

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Investigate self-exploration method in the group smoking cessation program for the secondary school students.

#### **CHENG-YEN Hsu, YI-HUI Lin**

#### Introduction

The Global Youth Tobacco Survey shows that in year 2014 the smoking rate of junior high school students is 5%. Among of many different factors which lead adolescent to smoke a cigarette the influences of peers is quite significant, it also make them overlook the danger of smoking. The design of this study is done by the psychologists and nurses' leading a peer group, to help students be aware of the threat of cigarette smoking, therefore to increase their motivation to quit smoking.

#### Purpose/Methods

The study group is composed of teen junior high students who have a habit of smoking. Once a week they participated in the 90-minutes smoking class session for the period of four weeks. The topics of the set sessions included health education of smoking, experience of dull taste, self-exploration, self-awareness, confidence rebuild social and emotional coping skills. Participants share their experiences and support each other in the group. At the end of each session, they have a self-monitoring homework and rewards are held. When the sessions finished, the school's nurse will still follows these students and trace their results.

#### Results

The results shows that teen participants for the time of three month pointed abstinence rate of primary was 50% per day significantly (paired t=6.2, p<.001).

#### Conclusions

The health education group significantly has strengthened students' self-affirmation and emotional adjustment. The members shared their experiences of smoking and the influence of taste sense by using tobacco, with other students to encourage them to guit or reduce smoking habits.

#### Comments

Many high school junior students smoke because of difficulties dealing with their emotional needs and not healthy interaction with the peer groups. Therefore, it is suggested that health promotion should add some courses which could of strengthen self-discovery and emotional adjustment into the general education, to help students to strengthen self-affirmation to reject substances.

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#### The effectiveness of mindfulnessbased interventions in adolescent smoking cessation

#### WANG Hsueh-Yin, SHEN Shu-Hua, LU Hui-Lan

#### Introduction

Purpose of this program was to explore the effectiveness of mindfulness-based interventions in adolescent smoking cessation.

#### Purpose/Methods

The mindfulness-based psychotherapy theory was applied in this innovation program, once a week for 6 weeks, with a multi-disciplinary team approach to offer a series mindfulness-based contemplation activities before and after the group performed to assess the case and breath carbon monoxide concentration and the changed of Fagerstrom test for nicotine dependence (FTND), in order to understand the effectiveness of the smoking cessation group.

#### Results

13 male adolescents were all the 3 grade in Junior high school. The overall members has total reduced of the average daily cigarette consumption about 5.54, reduced by about 57%, the average amount of carbon monoxide exhaled declined about 52.16% compared with the previous survey, average reduction was about 2.77 ppm, nicotine addiction degree (FTND) has improved to a low level (4 points not included) or less after measured, and there are three members have quit smoking.

#### **Conclusions**

This program has certainly proved the effectiveness of mindfulness-based psychotherapy theory to adolescent smoking cessation group, but still lack of relevant empirical research, and most of the staff had not received related training. Continue to implement this program was suggested in future, collect and record information on various organizations and members of the statistical analysis in order to understand the mindfulness-based contemplation intervention and see effectiveness for teenagers' smoking cessation, to develop and build this treatment mode.

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The Study of Smoking Behaviors and Second Hand Smoke Exposure in Pregnant Women

WANG Ru-Hsueh, WENG Hsuan-Han, CHEN Chuan-Chuan, LIU Chia-Chang, WU Jin-Shang, YANG Yi-Ching

#### Introduction

Maternal tobacco use increases the risk to baby and it may result in stillbirth, low birth weight and premature death. Besides, inhaling environmental tobacco smoke can induce sudden infant death syndrome. In spite of the harmful effects of parental smoking, there were 12% pregnant women smoked in USA in 2000. There were 60% pregnant women's husband smoked and over 80% of smoking mothers didn't quit during pregnancy. For pregnant women in Taiwan, the prevalences of smoking are 4.6, 6.3 and 6.6% in 1993, 2003 and 2006, respectively. Because of the increased trend of active and passive smoking in pregnant women, we conducted this study to investigate the smoking behaviors of pregnant women and understand their smoke status and situation of second hand exposure.

#### Purpose/Methods

This study enrolled pregnant women, who visit Obstetric Clinic of NCKUH from January to December in 2015. They were investigated by using structured questionnaire including socio demographic data: age, education, occupation, income and marital status, past medical history, reproductive history and tobacco and alcohol drinking habit. Informed consent were obtained before starting the face-to-face interview. The Data was entered into SPSS for Windows Version 17 for analysis and all statistical tests were conducted at the 5% level of significance.

#### Result

A total of 237 women were recruited and their mean age were 32.95+3.8 years old. There were 4 current smokers and 3 exsmokers. In addition, 48.1%(114/237) of women had second-hand smoking exposure and 18 were exposed to husband's smoking. We found that the smoking women had a lower employment and education level, and a higher rate of drinking and second-hand smoke exposure. Based on multiple logistic regression analysis, the independent associated factors of smoking were alcohol drinking, having chronic diseases, low education level and no employment in these pregnant women

#### Conclusions

From these pregnant women, the prevalence of smoking was 3 % and 48.1% suffered from second-hand smoking exposure. The associated factors of smoking in pregnant women were low education level, no employment, having chronic disease and drinking habit. Based on the point of prevention, we may provide education programs for the women who have alcohol drinking, chronic diseases, and low education level and no employment in clinical practice

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To explore the effectiveness of health education intervention to quit smoking in military physical examination

#### FANG Miao-Ju, CHEN Ying-O, LIN Shu-Chao, LO Hsien-Yi, WU Chun-Yi, CHEN Hui-Yun, HSIAO Yu-Ling, TSAI Tsung-Lung, LIU Hsiu-Chen

#### Introduction

Quitting smoking is one of the important health-promoting treatments recently. Tobacco is the number one killer to human health. However, there was a large number of smoking behaviors happening before compulsory military service recruit. The impact on the future health is very huge. Therefore, the need of health education related to smoking cessation strategy in each country is urgent. The use of limited manpower and the most suitable method is currently the most important issue in HP.

#### Purpose/Methods

The purpose of this study is to help the draftees successfully quit smoking through health education only without medication. Subjects of this study included the draftees for physical examination before entering the army in a hospital in southern Taiwan 2015. Adopted methods are as following 1. the education course was executed by six senior smoking cessation teachers 2.the cessation education was introduced during military physical examination 3. regular monthly telephone interviews were performed to track and guard the education.

#### Results

There were 1455 draftees receiving the hospital physical examination, among them 256 people had the habit of smoking, and the ratio was 17.59%. One hundred and ninety six draftees received the creative cessation education course by the senior teachers by one on one, and face to face method. Then the telephone visit was performed once a month. The three-month cessation success rate was 22.7%, and six-month success rate was 41.9 %.

#### **Conclusions**

Health administration, conscription and medical units should work together to form an alliance partnership. Actively training professionals with quit smoking education skill, providing smoking cessation health education knowledge and skills to the draftee before army entrance, and tracking call and health education later on were found to be effective to enhance the quitting smoking ratio in compulsory military service soldiers. It can create a fresh air environment in the military place, therefore it could promote a healthy "smoking free army."

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## **Exploring the Effectiveness of Soldier Smoking Cessation Cognitive Groups**

#### LU wen-lan, CHANG shu-min, SHEN Shu-Hua

#### Introduction

The purpose of this study was to explore the effectiveness of smoking cessation of soldier through cognitive group therapy, to

enhance awareness of the harmful effects of tobacco , increase motivation to quit smoking, reduce smoking and carbon monoxide concentration, to achieve smoking cessation success rate.

#### Purpose/Methods

Subjects were 10-12 soldiers in southern of Taiwan, received 7 sections smoking cessation cognitive group therapy from October to November 2014, group therapy content included the health hazards of cigarettes, recognize withdrawal symptoms and coping skill , how to refuse cigarettes , understanding drug replacement treatment, lifestyle changed , weight management, exercise during smoking cessation , experience sharing. Cognitive Assessment Tool contains harmful effects of tobacco questionnaires, to detect carbon monoxide concentration and record a week smoking amount.

#### Results

The average age of 12 subjects was 29.4 years old, smoked year was 10.75 years; the average smoking amount was 15.83 cigarettes per day, the average of CO value was 13.02.ppm, were moderate smoker. The result revealed tobacco hazard cognition degree increased 55%. The smoking amount of each person decreased from 13.3 cigarettes to 1.7 cigarettes. CO detection results from 9 moderate smokers (75%) down to 2 (8%), 9 smoker success to quit smoking.

#### Conclusions

Smoking cessation groups of peer support and encourage each other and strengthen health beliefs, can effectively enhance the soldier quit motivation and reduce the amount of smoking. With the peer group cohesion, emotional catharsis, hope perfusion, after impart information and other factors intervention group smoke damage can enhance cognition, increase motivation to quit smoking, reduce smoking and carbon monoxide concentration, to quit smoking successfully.

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The Experiences of Smoking
Cessation Intervention for Korean
Soldiers through Cooperative
Partnerships between Public Sector
and Health Promoting Hospitals

#### KWON Eunjoo, NAH Eunhee, JEONG Jun-Won, HAN Seokhee

#### Introduction

Participating in the military service is mandatory for all men in Korea. Also unique and traditional culture is existed in the Korean military camps different from society. Especially smoking pressure of fellow soldiers is possible to influence starting and continuing smoking among soldiers. Smoking rates among soldiers are related to male smoking rates, because the percentage of male is much higher than female in soldiers. Thus, it is necessary to share our experiences of smoking cessation intervention based cooperative partnerships.

#### Purpose/Methods

The purpose of this study is to describe the experience of smoking cessation intervention for Korean soldiers performed by Korea Association of Health Promotion (KAHP) in 2015. The smoking cessation intervention was based cooperative partnerships between public sector and Health Promoting Hospitals (HPHs) as primary health care setting.

#### Results

The public sector includes Ministry of Health and Welfare (MOHW), Korea Health Promotion Foundation (KHPF), Ministry of National Defense (MND), Korean National Police Agency (KNPA) to develop partnership. The public sector takes charge of financial assistance, administrative support. KAHP planned, implemented, evaluated intervention. Moreover, several specialists participated this intervention to consult. Intervention was included the followings: mobile anti-smoking clinic in the military camps, anti-smoking supply provision for the military camps, creating anti-smoking environment, anti-smoking service for military recruits.

#### **Conclusions**

The intervention of smoking cessation for soldiers needs to consider the importance of cooperative partnerships. In addition, well-organised, steady cooperation with clear roles between public sector and HPHs is useful strategy to smoking cessation. KAHP will make a greater effort to support smoking cessation for Korean soldiers sustainedly.

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## Effectiveness of Smoking Cessation in a Prison of Middle Taiwan

#### WEI YUAN JUNG, YANG WEN HUI, TSAI TSEN WEI, CHEN YU LUNG

#### Introduction

Smoking is an important contributor for cancer and cardiovascular disease and quiti smoking decrease the risk for cancer and cardiovascular disease. However, different types of smoking cessation usually have different effectiveness in smoking cessation. This study investigated the effectiveness of different smoking cessation methods in a prison of mid-Taiwan.

#### Purpose/Methods

Participants were selected by random, and classified as three groups 1) joining both the smoking cessation education program and using nicotine patch, 2) joining the smoking cessation education program without using nicotine patch and 3) neither joining the smoking cessation education program nor using nicotine patch. A questionnaire was used to collect data after 6 months of jointing the program. The questionnaire includes participants' basic information, history of smoking, history of smoking cessation, and nicotine addiction.

#### Results

There were 636 participants in this study, and the moking cessation rate was 37.5%. It is significantly higher moking

cessation rate for the participants who were joining smoking cessation education program. The frequency of smoking cessation education program and nicotine patch determined smoking cessation rate. Other predictors for a success in quitting smoking include an older age, a longer sentence, and a shorter history of smoking, addictiveness, health and economic reasons for quitting smoking.

#### Conclusions

Smoking cessation education program and nicotine patch are useful quit smoking methods in prison.

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#### The experience of implementing Smoking cessation consulting and message to improve nocturia in the elderly - 3 years followup

#### WENG Wei-Che, TSENG Hui-Cheng

#### 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 is associated with increased risk of coronary heart disease and death. 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. Six months followup for smoking cessation did decrease the nocturia frequency and nocturnal urine production in previous report. The aim of the research is to implement Smoking cessation consulting and message to improve nocturia and the association with the risk of coronary heart disease 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 332 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 , 12 months, 24 months and 36 months later.

#### Results

otal 332 patients (212 male and 120 female) were included in our study and age was from 60 to 79 years ( mean age 70.1. $\pm$ 4.5). There were 188 patients (56.6%) have received medication for hypertension and 37 patients (11.1%) have received medication

for DM more than one year. After implementing smoking cessation consulting and message, smoking cessation was reported in 201 patients (60.5%). Among these patients with smoking cessation, the urine amount during sleep changed from 921 ml to 747 ml (p=0.0031) and the nocturnal frequency decreased from 3.6 voids to 1.9 void per night (p=0.033), 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=0.025) after 36 months followup. 7(3.5%) patients was reported to have CHD and 11(8.4%) patients was reported to have CHD.

#### **Conclusions**

Smoking can induce atherosclerosis, hypertension, coronary heart disease(CHD), chronic obstructive pulmonary disease(COPD), and cancer. 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. Comparisons of results obtained in our study, smoking cessation was noted to decrease nocturnal urine production, decrease nocturnal voiding frequency and improve quality of life. Smoking cessation also found to decrease the occurrence of CHD after 3 years followup.

#### Comments

The cigarette smoking brings about COPD 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, nocturnal voiding frequency and CHD occurrence. Implementing smoking cessation did improve the life-quality and decrease CHD attack among the patient with nocturia polyuria.

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## The health education may include biomarkers to increase effectiveness in smoking cessation

## WENG Hsuan-Han, WANG Ru-Hsueh, LIU Chia-Chang, WU Jin-Shang, YANG Yi-Ching

#### Introduction

Cigarette smoking is the leading preventable cause of illness and premature death in developed countries. About twenty thounds Taiwaness died yearly from smoking related conditions. Although approximately 70 percent of smokers said in surveys that they want to quit. Unfortunately, most smokers fail during a given quit attempt, and those who eventually succeed typically make several unsuccessful attempts. Thus, it is important to look for effective methods of education to the smokers who were struggling in smoking cessation.

#### Purpose/Methods

In order to find the effectiveness of education of tobacco cessation, We collect the case who had received education progrom for tobacco cessation from Jan to July at 2014 and 2015 at the clinic of smoking cessation in NCKUH. There were 386 and 1052 persons. They were educated about the health hazards of smoking, ways of smoking cessation and were given support for smoking cessation. The education programs were included in the handbook of smoking cessation. However, there were emphasised the expired of CO, lung function by FEV1 and Body weight change at 2015.

#### **Results**

They were all followed up by telephone at 3 M and 6 M after education. They were asked about smoking or not in the past 7 days. There were 79 persons (20.47 %) not smoking at 3 m and 109 (28.2%) not smoking at 6m in 2014. And in 2015, there were 363 (34.5%) not smoking at 3m and 450 (42.8%) not at 6 m. Both the point tobacco cessation rate to have the significance differencebetween 2014 and 2015.

#### **Conclusions**

In 2015, we included the examinations of lung function in the education program of smoking cessation and found the nosmoking rate are higher than 2014. By comparing the method of education, the difference were health examinations including CO examination, lung function examination and BW monitors. Whenever we gave helth education, the evidence of biomarks may give us a hand. Especially in the education of smoking cessation.

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## Session P2.13: Handling substance abuse

Preliminarily Constructing the National Project to Promote the Treatment of Alcohol Use Disorders

#### FANG Chun-Kai, LIN Chia-Hua, SHIH Pao-Wen, YEH Tzu-Ching

#### Introduction

Even Taiwan is a medical developed country, alcoholic abstained service system is still very incomplete. Taiwanese National Health Insurance did not promote the patients with alcohol use disorders to search medical services for abstaining alcohol, so many patients and family did not have any idea to find help. Taiwanese Ministry of Health and Welfare wanted to construct the system to promote the treatment of alcohol use disorders since 2015. The project was to preliminarily construct the system.

#### Purpose/Methods

By inviting public bidding, there were four hospital included to construct the system, including two general hospitals and two

psychiatric hospitals. MacKay Memorial Hospital was the leadership hospital to construct the preliminary system. The duration of the preliminary project was from September to December 2015. We organized one national expert meeting, one national cross-border communication meeting, and many small groups for medical staff to collect all ideas and suggestions.

#### Results

We decided to name the project 'Drinking and Harm Reduction'. We constructed the active and passive pathways for people to search medical services for abstaining alcohol, including department of psychiatry and the other departments, automotive supervision stations, courts, community health centers, family support centers, and social welfare institutes. During 4 months, there were 51 people with alcohol use disorders enrolling the project. 40 of them attended actively who got the information from internet and posters. 5 of them were transferred from social welfare institutes, 5 were from family support center, and 1 was from a community health center.

#### Conclusions

Even only the execution of four months, we have preliminary construction of the system can provide the service. 'Drinking and Harm Reduction' is easy acceptable by alcoholics. Although there was not any one transferred from automotive supervision stations and courts, the civil servants and judges understood how they could help who break laws related to alcohol use disorders. Constructing service systems to promote the treatment of alcohol use disorder will be create health body and health life style.

#### Comments

Taiwanese government did not create the national systematic policy to help them suffering from alcohol use disorders before. Now, the government wants to help them to recovery and renew their life. We hope to let it know by all medical staff and the public.

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# Exploring the Alcohol Addition and Drunk Drinking Offenses into Correctional Institution in Southern of Taiwan

#### CHANG Shu-min, SHEN Shu-Hua, LU Hueilan, CHENG Ching-Ming

#### Introduction

The purpose of this study was to explore drunk drinking and driving offenses into prison case demographic characteristics analysis, to understand the history of alcohol drinking, and alcohol addiction evaluation, hope this study as a reference for future therapeutic intervention.

#### Purpose/Methods

Subjects was the case who was arrested for drunk driving and driving violations into the prison from September 2014 to

September 2015 in southern of Taiwan . The mental and alcohol edition assessment questionnaire was applied for data collection, including demographic variables, history of alcohol use , alcohol addiction status and mental . SPSS 18 software used for data analysis.

#### Results

The study found 511 cases had drunk drinking and driving violations into the prison, the most of was male drinker, mean age 45 years, senior and high school education, and have jobs, mostly single and living alone. The average year of alcohol use was 27-year. 58.9% of cases do not think drinking related to mental status. 73.6% Alcohol addiction degree was between moderate to severe , 41.5% had drank 6 units of alcohol , alcohol addiction awareness level is low (Mean = 1.19).

#### Conclusions

The character of drunk driving cases commonly used in high concentrations of alcohol per day, and less interaction with family and friends, do not feel excessive drinking, , do not think drinking will affect the work or harm to others, no guilty feeling and liquor drink more and more, obvious less supportive systems and drinking behavior deviation. Suggest establishing supportive systems, and enhancing awareness of tobacco and alcohol harm in future, reducing damage caused by drinking and driving.

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# A KAWA Model-Based Group for Ketamine Users: Life Narrative and Factors Related to Motivation to Change.

#### HSIAO Han-Yi, WANG Tsui-Ying, LU Young-Chin, LEE Chun-Hung, JHENG Jing-Ming

#### Introduction

KAWA (aka river) model takes the river as a metaphor for life.(Iwama, 2005). By describing the life experience through drawing the river with flow space, driftwoods, banks, and rocks, the person's expectations, assets and limitations were discovered. For young people at risk, such as drug users, this strategy placed the persons at the center of his/her story without stigmatizing them by their problems, and that may enhance the self-awareness and motivation to change.

#### **Purpose/Methods**

This study applied the KAWA model for a group intervention with ketamine users, and examined their satisfaction of the group experience. The narratives of their life trajectory and the issues related to the drug use were also explored. The 4-week group met 90 minutes once a week. Participants drew and shared their river images as well as their life experiences. Followed sessions were discussions about these emerged life issues and the roles of drug in their life.

#### Results

A total of 18 participants attended the group and completed 49 post-group evaluations by a 6-point Likert scale (1=strongly disagree, 6=strongly agree; no neutral rating). Average scores for willingness to draw/share were 5.59 and 5.51; satisfaction of the group was 5.58. Analysis from 12 completed drawing and personal narratives, we found the top two facilitators of abstinence (driftwood) were family and friends, and having stable jobs. The barriers to abstinence (rocks) were financial stress, unstable job, family pressure etc.

#### **Conclusions**

This research found that group based on KAWA model could improve active participations for ketamine users' compliance, and reduce clients' defensiveness demonstrated by willing to tell life story from their perspectives in short term. The self-analysis of drawing increased the therapist and participants' understanding of the barriers and facilitators with abstinence issues.

#### Comments

The intervention group only lasts for four weeks, which may undermine the effect on motivation to change for the participants. The findings may be insufficient for the lack of comparison group. However, the subjective ratings of satisfaction and narrative findings support the use of KAWA model as an effective strategy in group intervention.

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# The experience of intervention with 3A3R program to abstain or decrease chewing amount of areca nut and betel leaf

### TSENG Hui-Chen, TSENG Yi-Ling, WANG Sheng-Hsun, WENG Wei-Che

#### Introduction

Chewing the mixture of areca nut and betel leaf is a tradition, custom or ritual which dates back thousands of years in much of the geographical areas from South Asia eastward to the Pacific. Habitual chewers of areca nut and betel leaf have a greatly increased risk of developing cancers of the mouth and esophagus. It also has many systemic effects, such as tachycardia, hypertension, asthma, type 2 DM. In 2003 the International Agency for Research on Cancer (IARC), reached the conclusion that there is sufficient evidence that the habit of chewing betel quid, with or without tobacco, is carcinogenic to humans. The Health Promotion Administration promotes the cessation of chewing areca nut and betel leaf because 5400 new cases of mouth cancer were diagnosed and 2300 cases died owing to mouth cancer per year.

#### **Purpose/Methods**

The Health Promotion Administration has set up the oral mucosa screen for more than 5 years. The cases with abnormal mucosal lesion were persuaded to stop chewing areca nut and betel leaf.

We adopted 3A3R program to help these cases abstained or decreased from chewing areca nut and betel leaf.

#### Results

We collected 15 patients (14 males, 1 female) chewing the mixture of areca nut and betel leaf from local ENT clinic. They received our education for the serious diseases associated with areca nut and betel leaf, including cancer. The methods for abstaining or decreasing from chewing areca nut and betel leaf were introduced for them. Total 5 male patients agreed to receive our 3A3R program with 4 guiding courses. After the guiding courses, their chewing amount decreased from 16.7% to 33.3% per week, and a case was abstained from chewing areca nut and betel leaf completely.

#### **Conclusions**

Chewing the mixture of areca nut and betel leaf was noted to have the effect of decreasing melancholy and freshening up. These effects made the laborers feel reinvigorated and they could work effectively. Even these patients understood the risk for mouth cancer, but they didn't agree to accept our abstaining program due to be busy and lower aspiration. All the cases attending our program have dramatic decreased chewing after 4 guiding courses. It indicated that the 3A3R program did have the effect to decrease the chewing amount of areca nut and betel leaf.

#### Comments

Chewing the mixture of areca nut and betel leaf may lead to serious diseases, such as mouth cancer. The patients with the habit have lower aspiration to abstain owing to be busy and reinvigorating effect. The 3A3R program intervention did help these cases to abstain and decrease chewing amount.

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## Session P2.14: Promoting maternal, child and adolescent health

Exploring the social support and perceived stress difference between mothers with singular and multiple births preterm infants in Taiwan

### CHANG Yu-Shan, HUANG Li-Chi, CHENG Yi-Chuan

#### Introduction

The purpose of study is to explore postpartum social support and mother perceived stress difference between mother with singular and multiple birth preterm infant at one month after discharged from hospital in Taiwan.

#### Purpose/Methods

The study is a cross-sectional designed. Data were collected by purposive sampling. A total of 52 singular and 38 multiple births

of premature mothers were recruited in a sick baby room (SBR) at a medical center in the central Taiwan. The measurement was self-reported questionnaire including both mother's and infant's demographic data, 21 items Social Support Scale, and 15 items Perceived Stress Scale. Participants filled the questionnaire after infants discharged one month by email or at outpatient unit.

#### Results

The study showed that average score of social support was 76.6 in mothers with singular birth infant, and 76.5 in mothers with multiple births infant (total score= 104). The most important supporter was husband. The average score of perceived stress was 25.8 in mothers with single birth infants and 31.0 in mother with multiple birth infants, which revealed statistically significant difference (P = 0.02). The sleep deprivation and fatigue were server in the mother with multiple birth infants when compared with singular birth.

#### **Conclusions**

We suggest that the stress and needs difference between mothers with singular and multiple birth need to be recognized and provided in the clinics. The finding serves as a reference for promoting better preterm infant care.

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#### Analysis of South Korean Student Health Examination Results and Suggestions for improvement

#### KIM Kue Sook, CHOO Daniel, LEE Woo Hyung, LEE Ji Hong, LE Lai, LEE Yu Jeong

#### Introduction

This study was performed to evaluate the current Student Health Checkups and National Health Screenings of South Korea for validity, follow-up management, and overall efficacy by reviewing said examinations in order to propose possible improvement measures.

#### Purpose/Methods

Student Health Checkups, National Health Screenings, National Children and Youth Policy Direction, health check reports, and other relevant documents were reviewed and analyzed in order to derive proper follow-up management for Student Health Screenings.

#### Results

1) Student Health Screenings are composed of public health consultations, body measurements, and oral and pathological examinations. 2) Student vision abnormalities and oral diseases accounted for a large percentage, with obesity and chronic illness percentages increasing. Vision abnormalities ('01) 39.5% to ('11) 57.6%, Oral disease ('01) 57.5% to ('11) 59.3%, Obesity ('07) 11.2% to ('11) 14.3% (Based on '11 sample survey) 3) Academic stress, school violence, Internet addiction, neglect, and cyber violence has led to the lowest student life satisfaction rating in the OECD.

#### Conclusions

Even though schools have offered diverse health education programs, problems with student health remain due to the lack of professional manpower that is needed. We propose that counseling and treatment for depression, drinking, and smoking for students be offered alongside student health promotion programs at hospitals with the capability and resources to offer these services.

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Use of the National Diabetes Data Group and the Carpenter-Coustan criteria for Gestational Diabetes Mellitus and risk of adverse pregnancy outcomes

#### LU Mei-Chun, HUANG Song-Shan, YAN Yuan-Horng, WANG Panchalli, HSU Yueh-Han, CHEN Wei

#### Introduction

The influence of different diagnostic thresholds for gestational diabetes mellitus (GDM) on pregnancy outcomes is not fully understood. Degrees of glucose intolerance according to the Carpenter-Coustan (CC) criteria were less severe than the National Diabetes Data Group (NDDG) criteria for GDM. Recent studies have shown inconsistent results for the risk of adverse pregnancy outcomes between the NDDG and CC criteria.

#### Purpose/Methods

The objective was to investigate whether pregnant women who met only the CC criteria but not the NDDG criteria had increased risks of adverse pregnancy outcomes compared to the negative screening group. Patients were classified as follows: (1) negative screening group (2) false-positive screening group, (3) CC-only-GDM (not NDDG) group, and (4) NDDG-GDM group, Multiple mixed effects logistic regression analysis was used to examine the relationships between the groups and pregnancy outcomes.

#### Results

There were 9,002 (78.4%), 1,776 (15.5%), 251 (2.2%), and 457 (4.0%) study pregnancies in the 4 groups. Compared with the negative screening group, the maternal outcomes were not different within groups except for gestational hypertension/preeclampsia. For neonatal outcomes, the CC-only-GDM group had significantly greater risks of macrosomia, low birth weight, and admission to a neonatal intensive care unit [adjusted odds ratio (95% confidence interval): 2.73 (1.18-6.31), 1.64 (1.01-2.64), and 1.61 (1.05-2.46), respectively].

#### Conclusions

Our findings showed that the women who met only the CC criteria and those who met NDDG criteria had significant increased risks of adverse neonatal outcomes. The evidence adds important information to the current debate about the diagnostic criteria for GDM on pregnancy outcomes.

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## The effects of social support program for postnatal perceived stress and depression

### HSUESH YU Cheng, FEN JU Chen, YU FEN Cheng

#### Introduction

This study aimed to investigate the effects of a social support network program on the degree of perceived stress and postnatal depression among maternity women.

#### Purpose/Methods

Women with 36 weeks' gestation and smart phone user were recruited and randomly assigned into control (65subjects) and intervention(61 subjects) groups. In the intervention group, through app Line, social support network program was provided twice per week for 4 weeks duration after their childbirths while the control group received postpartum routine care. The Perceived Stress Scale and Edinburg Postnatal Depression Scale were used to assess perceived stress and postnatal depression degree at 2-5days and 4 weeks of postpartum.

#### Results

In intervention group,maternity women receiving the support network program had significantly lower perceived stress (-1.57 $\pm$ 4.29) and postnatal depression(-1.08 $\pm$ 3.85) compared to the control group(1.92 $\pm$ 5.12) (p < .001) (2.62 $\pm$ 3.77) (p < .001).

#### Conclusions

This survey using app Line as a social support network program had significantly reduced the perceived stress and postnatal depression than routine care. According to this result, we suggest that an intervention program like app Line could be used as a tool for postpartum routine care to reduce the degree on postnatal depression and perceived stress for maternity care.

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## The effects of comfort program for maternity depression

## HSUESH YU CHENG, FEN JU CHEN, YU FEN CHENG

#### Introduction

A postpartum woman will suffer tremendous pressure while newborn baby is admitted to intensive care unit. This paper aims to explore the effect of introducing a comfort program to the postpartum women, whose newborn babies are admitted to ICU.

#### Purpose/Methods

In a medical center, 19% of maternity women's babies are admitted to ICU. The team introduces a comfort program to them.1.An investigation on the need of mother whose newborn babies admitted to ICU. The team provide high demanded information and care to the mother according the result of investigation. 2. The team consistently hand over the condition of mother and baby. The nurse proactively escort the mother to participate workshops. 3.A designed "newborn diploma" is distributed to the postnatal woman.

#### Results

36 mother with newborn baby admitted to ICU at least 24 hours are in the program. First, the perception of baby's severity and the need of information and support. The higher score the higher need for help. The result demonstrate that the needs are satisfied (P<0.001). Second, The Edinburgh Postnatal Depression Scale to measure maternity depression degree at admission and discharge. The mother's depression is statistically significantly improve (P<0.001). Third, the correction rate of baby care is improve from 89.1% to 100%.

#### Conclusions

By care team's care on the high-demanded needs, the maternity depression can be relieved by the comfort program.

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#### Life Experience of Women with Unsuccessful Vaginal Birth after Cesarean Section

#### KUO CHIH-JUNG, HUANG HUI-TING, CHUO YING-HSIANG

#### Introduction

Vaginal birth after Cesarean section (VBAC) is a method that helps avoid Cesarean sections that are not medically necessary. Foreign and domestic studies have shown that successful VBAC is associated with a lower risk of perinatal complications compared with repeated Cesarean section, and that VBAC is currently a safe delivery method in advanced medicine. The positive birthing experience in women who have a successful VBAC also shows that this method has a favorable effect on women's self-esteem and reinforces their belief that they are able to give birth. Clinical records reveals that uterus rupture is usually not the main cause of unsuccessful VBAC. Understanding the emotions of women who have experienced an unsuccessful VBAC and establishing the underlying factors of unsuccessful VBACs are critical. The birthing stories of women who have experienced an unsuccessful VBAC reveal the medical care they require and can be valuable reference for medical practitioners.

#### Purpose/Methods

Oral history was adopted to conduct in-depth interview and collect data from 10 participants. Narrative analysis was performed on the collected data. The primary data were the life experiences of women who underwent a Cesarean section after an unsuccessful VBAC, the medical care they received, and the

social significant meaning of these experiences. The purpose of this study was to identify the similarities and differences between the participants' life histories, thus integrating a complete life experience.

#### Results

The life experiences reported by the women who underwent repeated Cesarean sections after unsuccessful VBAC include the following: 1. Being perceived as a patient during labor; 2. Being restricted to bed rest with limited activity; 3. Feeling frustrated about fasting during labor; 3. Not knowing how to react to labor pains; 4. The seemingly endless suffering of redelivery; 5. The initiative of physician in making decisions for childbirth; 6. The dilemma between continuing to wait for vaginal birth and giving up; 7. The sense of failure after an unsuccessful attempt of vaginal birth.

#### **Conclusions**

There has been more and more medical intervention in childbirth nowadays unnecessary Cesarean section will greatly increase if women's self-management is not appreciated or if adequate support is not provided. Women may develop a fear of childbirth, and they long for respect, care, and support; however, medical personnel tend to focus on the data from high technology apparatus and neglect physical and psychological needs as well as the comfort of the women giving birth. In this study, the women verbally described their birthing experiences and provided their perspectives on medical environment. This information may serve as a reference for improving the quality of medical care. The results of this study may also prompt medical practitioners to reflect on their clinical care practice. Specifically, providing appropriate birthing support and individualized nursing care effectively enhance pregnant women's confidence as well as aid them in managing labor pains and achieving a successful natural birth, thereby avoiding Cesarean sections that are not medically necessary.

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## The effectiveness of using mobile game car to alleviate pressure behavior of hospitalized children

### CHIA WEN HUNG, YUNG WEI CHEN, SHU FANG CHENG, CHUN MING SHEN

#### Introduction

From July to August 2013, a survey showed that 20 average 5-year-old sick children, due to hospitalization, they could not go out of wards and their incidence of behavior response to hospitalization stress were 20%, family satisfaction were 85%. Therefore, We decided to promote the therapeutic game among the hospital; it was no longer limited for single sick children or fixed timing and place

#### Purpose/Methods

First, we selected an appropriate car sort and design it into a mobile game car, it could be unfold as a table with three drawers for storage, and equipped with notebook, drawing tools, communication boards, symptomatic care appliances. The outward coated with cartoon images in canvas to attract children's attention. Staff nurses will estimate the single needs of hospitalized children daily, and move the mobile game car to their wards, demonstrate and guide caregivers using. Secondly, we tried to combine therapeutic game with clinical practice: respectively, we took the mood of hospitalized children into catharsis, guidance, physical health promotion as game axis and used the "doctor bag", "medical comic book" and "child interactive game disc" as the tool, and we also produced symptoms of care related auxiliary equipment, such as insulin injections Bear, Port-A-Cath dolls, and fake chemical drug injection pipe and drugs to help sick children through the participated in medical care process to improve disease symptoms. And we even setup a small Courage Award to encourage their participation in the game and brave performance.

#### Results

During October, 2013 and July, 2014, we performed the therapeutic game project in the hospital, after that, a survey showed that 46 hospitalized children with an average 5.4 years, their incidence of pressure behavior reduce by 20% to 4.7%, meanwhile, family members satisfaction had increased from 85% to 98%.

#### Conclusions

Pediatric staff nurses need to provide appropriate care to match the needs of sick children in psychological and social requirement. They need to creative their thinking, bring the game elements into clinic care, and use the therapeutic games to solve the problem. The mobile game car had interaction and bedside service; it can effectively enrich the sick children life and release their pressure during their hospitalization.

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#### Tuan-Tuan, Yuan-Yuan (Giant Panda) let's move! Children's healthy weight energy camp

#### KUO Chia-chen, YEN Juo-fen, LIU Sheueshya, YUAN Lu-fang

#### Introduction

Due to changing lifestyles and the influence of Western cuisine, children are not receiving balanced nutrition, thus their BMI is becoming increasingly abnormal. Disadvantaged students from Fuan Elementary School in Shezidao are chosen to participate in the course. Through the project's promotion, the curriculum is designed with exercising and dietary management in mind to improve the schoolchildren's exercise effectiveness and the parents' knowledge in nutrition, thereby remedying the situation of abnormal BMI.

#### Purpose/Methods

1. Weight management: New technology such as "Epson Pulsense Band" and "My Dinner Plate magnet book" are employed to teach the schoolchildren about regular exercising

and healthy eating. 2. Create a supportive environment: Open the "Healthy and Happy LOHAS Eating Class" to teach the parents about healthy cooking and ingredient selection. 3. Promote the energy baby bonus point collection program: Persons with top two accumulated points can exchange for a basketball and award certificate.

#### Results

1. In total, 28 students attended the course (13 girls (46.42%), 15 boys (53.57%), including 13 disadvantaged students (46.42%); 12 students lost weight (42.85%) and 17 students decreased their body fat (60.71%); the most weight lost by a student is 3.3kg and the most reduction in body fat is 1.9%. 2. 25 parents attended the "Healthy and Happy LOHAS Eating Class"; 98% indicated that "the class has given them new understanding about food and nutrition".

#### **Conclusions**

The program focuses on students from Taipei Municipal Fuan Elementary School in Shezidao with abnormal BMI, and the PDCA (Plan-Do-Check-Action) model was used. By combining school with family and by employing novel, interesting teaching aids, the program is able to effectively attract the attention of the schoolchildren. Besides improving healthy eating and regular exercising habits, it also creates a supportive environment to improve abnormal BMI. In the future, the program can be expanded to benefit more schoolchildren.

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# Evaluation of Effectiveness of Breastfeeding Support Groups through Mobile Application Programs

#### HSU Hui-Ping, LIN Hui-Min, LIAO Pei-Lin, SHEN Yu-Chuan, CHANG Hsin-Yi, HSU Chi-Chen, CHUANG Shu-Ting, CHIEN Sou-Hsin

#### Introduction

Literature shows that women participating in breastfeeding groups tend to be more willing and confident to continue breastfeeding. (Wang, Chen et al., 2012). In Taiwan, due to its history and culture, most women do not get personally and continually involved in the breastfeeding support groups and eventually give up breastfeeding. The purpose of this project "mobile app LINE group" is to organize breastfeeding support groups to raise the rate of breastfeeding.

#### Purpose/Methods

The project employs the popular mobile application " LINE" to organize and operate breastfeeding support groups. The basic constituents are trained nurses and women who successfully breastfed their children. The program encourage pregnant women and women in postpartum time to express the problems in the groups and let other members share experiences and support. A host who undergone breastfeeding training would coordinate the questions and answers to conclude the

discussions. Consultations and health education are also provided to prolong the time of pure breastfeeding.

#### Results

The result shows: (1) Pure breastfeeding rate within six month rose from 25% to 43.96%. (2) 90.47% of the women that joined the chat groups breastfed their children within 6 months; and 80.95% of the women in the chat groups breastfed their children along with other solid food one year after delivery. Up to now the longest period of continuing breast-feeding is 2 years and 4 months.

#### Conclusions

The above finding shows promoting breastfeeding through the LINE Groups is highly effective.

#### Comments

Breastfeeding support groups have very important influence on the continuity of pure breastfeeding. With applying remote care concept combined with the currently popular mobile application, breastfeeding during can effectively increase. However to ensure the quality of discussions and communications of a chat group, it is advised to maintain a fixed number of members within on group, and in cases of more participants, more chat groups can be formed.

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## Poverty among expectant and nursing mothers. From the point of view of medical social workers.

#### **IGISU** tomoko

#### Introduction

Japan has serious problems with poverty among expectant and nursing mothers. Especially young expectant and nursing mothers are faced with a lot of challenges. Early childbearing often harms both the health and QOL of mother and child. Therefore the hospital could play an important role for them before or after pregnancy/childbirth. However these problems have not been well examined in the hospital. The actual conditions of expectant and nursing mothers in the hospital need to be carefully examined.

#### Purpose/Methods

The purpose of the study was to investigate the problems of young expectant and nursing mothers. We reviewed the medical records of 31 young expectant and nursing mothers who consulted medical social workers in Chidoribashi general hospital in 2014 because of their socio-economical problems.

#### Results

The age ranged from 13-19 years old. Married mother was only one person. Only 5 participants had their parents. About 60% of the participants had no public medical insurance or public assistance. 3 participants were truants in the junior high schools and 7 were high school dropouts. Many of participants had experienced physical and sexual abuse.

#### **Conclusions**

Our findings showed that young expectant and nursing mothers had a lot of socio-economical problems and difficult lives. We should help them and their babies spend better lives by utilizing social resources.

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#### Can family pediatricians support the infant breastfeeding? Trento province experience.

#### PIFFER SILVANO, BOMBARDA LUCIA, PERTILE RICCARDO, PEDRON **MARIANGELA**

#### Introduction

Breastfeeding in the first year of life is strongly recommended by International Agencies. The proportion of breastfed infants at six months is a powerful indicator of infant wellbeing. Italian National Prevention Plan (2014-2018) places breastfeeding among its priorities. Family pediatricians (FP) can play an important role in supporting it, considering that they take care of children aged 0-14 years and they have to do, for each new born, at least 4 health assessments in the first year of life.

#### Purpose/Methods

In Trento Province, north Italy, a data collection on the twelfth month it is also provided by FP who must fill in a specific form and send it to the Epidemiology Department. By this form, data on breastfeeding are collected according to the WHO criteria. This study reports, for the 2012 birth cohort: breastfeeding monthly decay in the first year of life, proportion of exclusively breastfed infants at six months, its variability in relation to infant characteristics and individual FP.

#### Results

Data cover 80% of 2012 live births (n=5153). 96% were breastfed at birth (87% exclusively). This proportion drops to 82% in the first month and to 57% at six months. Infants exclusively breastfed at 6 months are 41.2%: 41% in born at term and 38% in prematurely born. The proportion of exclusively breastfed at 6 months doesn't vary according to residence and citizenship. There's a wide variability in relation to individual FP with a range from 8 to 60%.

#### Conclusions

The data confirm breastfeeding falling rate from birth to the first month of life and from first to second month. There's a substantial overlap between preterm and term infants and, above all, a strong heterogeneity at six months for each individual FP. It should be strengthened all FP awareness about their role in supporting breastfeeding. The indicators generated could also be used, in agreement with FP, to fix the potential health goals to achieve in the first year of life.

#### Comments

The role of the pediatrician can not be disconnected with the start of the breastfeeding promotion at birth.

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#### Creative campaigns to raise awareness of the dangers of smoking among children and adolescents

#### HSIAO Pei-Yin, LO Yu-Tai, YANG Yi-Hua, LIOU Wen-Chin

#### Introduction

Tobacco use is one of the greatest threats to public health in Taiwan. Research shows that children exposed to second-hand smoking are more likely to smoke themselves. Hence, a radical way to control tobacco use is to prevent it at their early age. St. Joseph Hospital designed a series of creative campaigns to raise awareness of the dangers of smoking among children and adolescents in the neighborhood. We also invited their parents and teachers to jointly promote a smoke-free environment.

#### Purpose/Methods

Our objective is to raise awareness and implant changes on the students and their families. 1.Invited ex-smokers to share stories about their experiences. 2. Conducted group learning sessions for adolescents on "Saying no to cigarettes." 3.Organized a tobacco control essay challenge. 4.Designed "I heart my LUNGS" coloring contest. The candidates color both a smoker's and a nonsmoker's lungs. 5. Exhibited the awarded art works in our hospital for recognition and for the audience to learn about smoking.

#### Results

i. 4 quitters' sharing sessions were held. ii. 1 group learning session for adolescents was successfully carried out. iii. 33 entries from the teenage group and 41 entries from the children group were received for the essay challenge, 8 winners were selected from each group. iv. 80 works for the coloring contest were collected, 8 winners were picked anonymously. v. Two weeks of exhibition for all awarded work in the hospital. 20 families and 3 teachers were engaged.

#### Conclusions

The tabacco control program were designed differently for different age groups. For children and adolescents of different ages, they were able to recognize and respond to observed smoking behaviors after the campaigns. Children and adolescents learned to care about smokers and searched for relevant information on the harm of smoking. They also learned to assist their friends and family for smoking cessation or reduction.

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#### A Study on Health Promotion Education Programs for Adolescents

## CHUNG Jui-Jung, CHEN Wen-Chun, HUANG Yu-Ting, CHEN Mei-Tsu

#### Introduction

Adolescence is a critical period of human development. We push health promotion education programs, in order to strengthen the concept of adolescent health behaviors and actions. We expect to enhance the health of young people through the health promotion education programs to promote knowledge and change their behavior.

#### Purpose/Methods

The aim of this study was to investigate the university student. One group pre- and post-test design was used and 52 participated in this study. Their life style will be examined by Walker's Adolescent Health Promotion Scale. We compare their difference in health promotion knowledge and behavior after 18 weeks educational intervention.

#### Results

The study applied Paired Sample T test for analysis. The research findings of 52 effective data, of which the average age of the subjects is 20 years old, revealed that the education programs were effective in improving the university student's health promotion knowledge and behaviors. "total score", " Question 8", " Question 11", " Question 12", " Question 13", " Question 14 " " Question 15 "," Question 18 "," Question 27 "," Question 29 were significant (p < .05).

#### **Conclusions**

Behavior patterns and lifestyle development in adolescence stage have a great impact on their future health development. The health promotion education programs indeed effectively enhance the health promoting behaviors and knowledge of young people.

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## Tackling the Obesogenic Neighborhood Environment to Prevent Childhood Obesity

### CHOU Hsiu-Yu, LO Yu-Tai, YANG Yi-Hua, LIOU Wen-Chin

#### Introduction

Childhood obesity has ballooned into a serious problem in Taiwan. Taiwan comes in seventh place on the world's childhood obesity rank. According to the survey, one out of every four Taiwanese primary school students is overweight, and this rate continues to rise every year. About 80% of these overweight childen will become overweight adults with significantly higher cardiovascular-disease risk. To solve the problem, St. Joseph

Hospital partnered with local schools and restaurants to create environments that support healthy eating.

#### Purpose/Methods

Our objective is to improve the students' eating habits in an obesogenic neighborhood. 1. Investigate breakfast eating habits of primary school students. 2. Partner with local breakfast restaurants. Provide incentives for them to offer healthy meals and jointly promote healthy eating. 3. Healthy Breakfast Points Lottery. When students order healthy meals at the partnered restaurants, they receive reward points that can be used for lottery. During the process students would learn to read nutrition labels and the correct diet concept.

#### Results

•Pre-program survey: 121 out of 141 students eat breakfast everyday, among which 9% often have fried food, 29% often have sugared drinks, and 18% often have snacks. •Post-program survey: The number of students that eat breakfast increased by 2.7%, sugared drinks decreased by 3.5%, and snacking declined by 4.5 %. 30 breakfast shops participated in the program. 10 of which were willing to keep providing healthy meals. The lottery engaged 506 students to participate, 251 students got full points.

#### Conclusions

Healthy eating habits need a healthy environment to support. Although the program only lasted for 30 days, post-program surveys confirmed that children's eating habits had effectively improved and the local restaurants were willing to cooperate. In the future we will continue to work with the neighborhood to create a better environment that promote healthy lifestyle.

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Exploring the Association between the High School Students' Sexual Knowledge source, Sexual Attitude and Sexual Knowledge in Northern Taiwan

### HU Chia Jung, YEH Gwo Liang, SHIH Ling Ju

#### Introduction

In Taiwan pornographic media increased every year, the adolescents' sexual attitudes were more open and the prevalence of premarital sexual behavior were also gradually increased.

#### Purpose/Methods

Purpose: explore the association between the source of high school students' sexual knowledge, sexual attitude and their sexual knowledge in Northern Taiwan. Methods:This research design was cross-sectional. We used a proportional stratified sample, finally selected 24 high schools, recruited 881 participants and the response rate was 93.9%. Structures questionnaires were used to collect demographics, sexual

knowledge and sexual attitudes. The data analyzed by descriptive statistics, t-test, pearson correlation, and p < .05 was considered statistically significant.

#### Results

Mostly the source of adolescents' sexual knowledge was from peers, teachers and mass media. The sexual attitude has high positive correction with the source sexual knowledge from internet, mass media, novels and comics. The attitude has high negative correction with the source of sexual knowledge from teachers and lower negative correction with parents.

#### **Conclusions**

In Taiwan pornographic media increased every year, the adolescents' sexual attitudes were more open and the prevalence of premarital sexual behavior were also gradually increased.

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#### Integrating Social Network Support System To Increase Exclusive Breastfeeding Rate At 6 Months

### CHEN Er-Mei, YAO Wen-Chen, WANG Wen-Yen

#### Introduction

Breastfeeding promotion is an internationally recognized issue important for enhancing maternal and infant health. It is a prominent healthcare policy in many countries. In our hospital, the exclusive breastfeeding rate at 6 months was 25.6%, far below the national average of 45.8%. Our analyses suggested being in a supportive and encouraging environment after birthing enhanced the women's willingness to continue breastfeeding and producing enough milk was beneficial for the physiological and mental health of the mother and the baby.

#### Purpose/Methods

Community network and support system were integrated to help increase the exclusive breastfeeding rate at 6 months. The case manager provided comprehensive nursing instructions during the prenatal, perinatal, and postpartum periods, and phone consultation service after the women returned home. The cases were referred to the health center of their residential district where the public health nurses paid home-visits. Volunteers provided translation services for foreigners. The women received a gift when they achieve exclusive breastfeeding for 6 months.

#### Results

The combined effort of the public health nurses and volunteers in the community helped increased the 6 months exclusive breastfeeding rate from 25.6% to 50.2%, which was higher than the national average of 45.8%. It was also found that the exclusive breastfeeding period extended significantly.

#### Conclusions

Hospitals can utilize and design social network to bring together the professionals in the community to establish a health care referral model. This increases the accessibility of care, enhances women's intention for breastfeeding and reduces their level of anxiety thereby building maternal confidence for breastfeeding, benefiting infant health, and ultimately constructs a friendly environment encouraging women to continue breastfeeding.

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## Efficacy of the audit in decreasing the proportion of cesarean deliveries

### PERTILE Riccardo, TENAGLIA Fabrizia, PEDRON Mariangela, PIFFER Silvano

#### Introduction

The 20th century showed an increase in the proportion of caesarean deliveries (CD) in all countries. The WHO judges to be optimal a proportion of CD not more than 15%, percentage associated with the lowest mortality rates and maternal and fetal morbidity. To describe and control the practice of CD, Robson proposed a deliveries classification in 10 groups based on four obstetrical concepts: pregnancy type (single/multiple and fetal presentation), obstetric history (primiparous, multiparous), labour (spontaneous/induced or elective CD) and gestational age.

#### Purpose/Methods

In 2007-2008 Obstetrics and Neonatology Department of Trento province (North-East of Italy) conducted a clinical audit to reduce the CD proportion in all birth centers, through the Robson's criteria. Following the positive outcome of this first audit, a second one (2012-2013) was carried out. Here, not only the proportion of CD was measured, but also the funiculus pH at birth (<7), the incidence of episiotomies and 3rd degree lacerations, post-partum haemorrhage and the proportion of operating deliveries.

#### Results

The first and second audit significantly lowered the overall CD proportion (28.4% pre-audit vs. 24.8% post-audit). The most significant CD decrease was observed in Robson's classes 1, 2a, 3 and 10, but mainly in class 5 (previous CD, single pregnancy, cephalic presentation, gestational age  $\geq$  37 weeks). The second audit showed also a significant reduction in the percentage of episiotomies (from 23.2% to 11.3%), while the other observed indicators didn't change.

#### Conclusions

This experience shows that it is possible to reduce the recourse to CD through a synergistic action and a strong integration between Obstetrics and Neonatology Departments. The monitoring of deliveries on the basis of the classes of Robson can help health professionals to understand where change is most needed. Each local information system which monitors the birth path and birth should systematically provide data on deliveries according to the Robson classes.

#### Comments

Robson classes 1 and 2A concern nulliparous women with single cephalic term pregnancy and respectively spontaneous and

induced labour; class 3 regards multiparous women with single cephalic term pregnancy and spontaneous labour (excluding women with previous cesarean section); class10 concerns all women with single cephalic pregnancy and gestational age <37 weeks

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## Effectiveness of the implementation of lean management plus information system in maternal care

#### LIN Hui-Min, HSU Hui-Ping, LIAO Pei-Lin, CHANG Mei-Fan, HSU Chi-Chen, CHUANG Shu-Ting, CHIEN Sou-Hsin

#### Introduction

Facilitation of pregnant women's perinatal security is an important goal for the obstetric care (Cai Yijing, 2014). Maternal case management systems and complicated procedures make it somewhat difficult to retrieve individual case materials and data as well as prenatal and maternal care information which results in extra workload for the staff and patients' complaints due to repetition of questions by the staff. This project is therefore initiated to fix the problems encountered.

#### Purpose/Methods

Data analysis: 1 staff unable to know of guidance status; 2. incomplete or complicated health education and increased workload; 3. Unable to trace maternal condition and information of individual cases Project is designed to improve the following steps: 1. set up a working team. 2. Simplify guidance forms during each session of prenatal care. 3. visual management information system to establish a case. 4. The actual operation of system, and requires nurses of 3 working shifts to provide feedback comments.

#### Results

During April 2014 to July 7, statistics of 218 users were collected. The overall satisfaction rate is up to 93%, among which user satisfaction in the delivery room is as high as 95%, followed by 92% for outpatient satisfaction. The top three highest scores are respectively attributed to: 1 maternity care guide progress is retrievable at any time (96.2%); 2 breast feeding situation conditions are available at any time when the patients' stay in the hospital (94.7%).

#### Conclusions

The feedback shows the lean management information system supplemented import maternal care, established case management information, which can effectively streamline workflow, and make information easily and efficiently obtained, facilitated effectiveness and quality of maternal care. The result is worth being shared with our peers so to enhance betterment of maternal care work.

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The use of "Give me Five" activity in Improving the Security of Intravenous tube for Paediatrics

#### HSIEH LI-HUA, WU JIN-JEN, CHANG YA-TING, CHIEN MEI-CHEN, YEN YI-LING, TSAI YI-FAN

#### Introduction

Intravenous injection is the main treatment for clinical children at department of paediatrics. In a district hospital, 100% of patients in paediatrics require intravenous injection to replenish body fluid and electrolyte. Between January and May 2015, the rate to re-fix the intravenous tube was up to 46.0%. Paediatrician teams implemented a "Give me Five" Game to attain the lengths of children's palms. This enables the provision of more suitable fixing board for children's intravenous therapy in securing the injection tube, hence reduce the rate of refixing the tube.

#### Purpose/Methods

Between June to October 2015, a range of different sizes fixing boards for intravenous injection were produced for children with various age. Attractive design were integrated with the board and displayed in injection room. Through "Give me Five" activity, nurses were able to attain the sizes of children's palms. Thus, provide with suitable fixing boards for individual child. On top of the fixing board, interesting design for sign board, poster and play cards were also designed to remind and inform nurses/caregivers of the fixing condition of intravenous therapy.

#### Results

There was a fall in rate of fallen injection tube from 46.0% to 7.3%. The rate of acceptance level for parents and nurses are 98.2% and 100% respectively.

#### Conclusions

Through the implementation of "Give me Five" activity, there was a sharp reduction in the need to re-fix the intravenous tube. This results can be used as a reference for future clinical paediatrics.

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The effective program of cardio pulmonary resuscitation in parents with high-risk newborns

CHENG Ya-chang, CHANG Yu-shan, LEE Jo-Hua

#### Introduction

The clinical care found cardiopulmonary arrest is a common complication of high-risk newborns, When high-risk newborns occur cardiopulmonary arrest at home, perform CPR correctly is very important, but in terms of the parents of non-medical background is a daunting task.

#### Purpose/Methods

Objective: I hope to use effective tools to increase skills of highrisk newborns parents and reduce the ratio of OHCA(OUT OF HOSPITAL CARDIAC ARREST). Methods: Use health education leaflets, video, and simple formulas to teach parents, reply to teach and correct mistakes.

#### Results

Total of 1642 cases, one case of cardiopulmonary arrest due to hospital after emergency is invalid.

#### Conclusions

Effective health education let high-risk newborns parents were impressed by CPR process. The parents not only rasie CPR skills, but also reduce high-risk newborns to pre-hospital death rate.

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# Use documentation cards and warming diagram to reduce fall damage in the hospital for Sick Children

## HUNG Hsiang-Ying, CHIANG Shu-Chuan, JHUANG Jia-Ci

#### Introduction

If falls occur during hospitalization, it can cause injury to patient's body, prolong in hospital stays, increasing medical costs, leading to medical disputes, increasing healthcare workers' work load and influencing job satisfaction. Make Warning diagram to enhance awareness of carers: including improving standards for nursing education and improving ward facilities. The purpose of this project has achieved by maintaining the basic needs of safety in children during hospitalization, and therefore, the quality of nursing care has improved.

#### Purpose/Methods

The setting of standard operating procedures for fall prevention at the time of admission. Developing a documentation card and warming diagram for fall prevention education, enhancing family education. Nursing education was launched on fall prevention that included demonstration and return demonstration of preventive measurements. Preventive guidance was posted with graphs specific to children to improve the care provided by caregivers. Adopt appropriate measures to prevent falls and improve, reduce sick children hospitalized due to injuries caused by falls.

#### Results

In January 2014 to December to use documentation card and warming diagram for fall prevention education, demonstration and return demonstration of preventive measurements. The rate of fall of hospitalized children dropped from 0.11% to 0%.

#### Conclusions

The purpose of study was to evaluate whether a teaching program on fall prevention would lead to knowledge. The patient who is fall in the hospitalized period, the cost will increase and the hospitalized will be extended. Reduce sick children hospitalized due to injuries caused by accidents, and prevent families increased anxiety, and additional medical care, and even extend their hospital days in order to achieve quality control goals, take effective measures to prevent falls incident became a top priority.

#### Comments

Fall was the most frequent type of incident in the pediatric unit. This program, which reduced injuries and saved medical costs, is a testament to how healthcare can be enhanced when caregivers and medical staff participate in such prevention programs and work together as a team to achieve a single goal. We hope everyone who is in hospitalized period can obtain complete nursing care.

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Sharing experience of building women-friendly medical environment - an example of southern Taiwan regional teaching hospital

#### FU Tzu-Chen, HUANG Chi-Cheng, HUANG Hui-Fang, CHEN Chin-Yun, CHEN Shu-Nu, LIN Gao-Tian

#### Introduction

"Gender friendly" concept is valued gradually in Taiwan recently. Our hospital located in southern Taiwan and women here are inclined to conservative attitude of medical advice. Therefore, it's more important to secure women's safety and privacy when they seek medical advice. We understand the differences of experience, demand and preference by questionnaires. The improvement of environment shows the respect of women's rights, interests and autonomy. We coordinated city government to held evaluation of women-friendly environment and won authentication in 2014.

#### Purpose/Methods

1. set committee of women-friendly environment to manage and promote 2. perform questionnaires and hire females as mystery guests to audit secretly 3. provide obstetrics and gynecology outpatient and feeding milk collection chamber 4. provide women safe medical mode, special secret check attention to protect privacy and accompany by nurses or volunteers, taxi

service at night 5. provide emergency medical treatment process for women harmed for sexual abuse and domestic violence, counseling and related referral process 6. offer education and upgrade employee's positive attitude and cognition

#### Results

1. Satisfaction investigation of women medical environment twice yearly, average satisfaction rate: 88.24% 2. Pap smear: help abnormal results to return clinic, return rate: 91.38% 3. Mammogram: help abnormal results to return clinic, return rate: 71.86% 4. Cases of sexual abuse with protection: 31 yearly, domestic violence with protection: 315 yearly 5. Women health promotion group held 26 educations with 445 persons, satisfaction rate: 92.9% 6. Held "gender mainstream and sexual harassment prevention" training courses with attendants 1057, satisfaction rate: 93.32%. female employees: 861, male: 194

#### **Conclusions**

In women health promotion, we emphasize to match the needs of women from female point of view and listen to women. To improve quality of medical advice and experiences expected by women, they have to participate medical plan actively. Women can get medical related information completely and have rights to decide. Our main spirit and meaning are to promote "womenfriendly environment of medical advice" so as to emphasize the fair sharing of medical resources and provide humanized, gender-sensitive treatment healthcare.

#### Comments

Women-friendly environment of medical advice not only emphasize the construction of friendly hardware but also value the concept of gender mainstream that is enhanced by hospital staff. Bottom up, we pioneer the creative service concept of women-oriented to provide our team healthcare for women need to be care. We hope they can feel our respect and receive the autonomy and high quality holistic medical healthcare.

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Using innovative and caring idea to reduce the fear of preschool children with cancer

## CHIA WEN HUNG, CHIU LING CHEN, YUNG WEI CHEN, SHU FANG CHENG, CHUN MING SHEN

#### Introduction

Children with cancer need a Port-A to perform chemotherapy, nutrients, drugs . From November 2014, we held a survey and it showed that 25 preschool children with cancer received the Port-A Injection, 92% had occurred the fear behavior. The average score of fear were 8.2 points( severe fear of 8 to 10 points); family member satisfaction was only 84%. By using innovative, developing caring idea we successfully reduced the physical and psychological trauma of children, promoting good relationship.

#### Purpose/Methods

We found the fear of cancer children caused and enhanced as following: First, nursing staff had insufficient communication before injection, for this, we innovated Port-A injection picture books, dolls and injection aids, and matching with role-playing, and "play with". Secondly, without control sense during injection: therefore, we arranged soft seats for caregivers to embrace cancer child, then, selected the injection position. Third, the nurse staff was lack of cognitive-behavioral, we provided the education of therapeutic play, developed the standard operation processes. Fourth, cancer child need reward aid and we set up courage award houses and child courage award to encourage the cancer child as rewards.

#### Results

After the above measurements were implemented, during February 2015 to March 2015 valuation, we included a total of 26 cases of child cancer, the fear behavior ratio was decreased from 92% to 23%, average fear score was dropped from 8.2 points to 3.0 points (mild fear of 1 to 3 points), and family member satisfaction had increased from 84% to 98.5%. Because of the fear of injection in cancer child reduced, the child was more cooperative, improved relationship between nurse staff and patient.

#### Conclusions

Health care workers must pay attention to the feeling of preschool children with cancer when facing an invasive treatment, instore Port-A-Cath injection process complying with the cognitive development of children with cancer. By using innovative, caring idea design related aids of therapeutic play and diversification strategy, to reduce fear behavior of cancer child, offer rewards to promote Port-A-Cath injection process smoothly, enhance interactive trust and sense of achievement between nurse staff and patient to promote the unique features of nursing.

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This study aims to apply NEWSTART in postpartum care, thereby improving the quality of the physical, psychological, and spiritual care.

#### YU JU-MIN, HSU Tzu-Chuan, HUANG Hui-Ting, CHUO Ying-Hsiang

#### Introduction

Postpartum women in Taiwan are subject to postnatal confinement after giving birth, such as: to avoid eating cold food or washing their hair, being confined to bedrest, to take high amount of oil and meat, and to avoid drinking cold water or engaging in intense exercise. Few studies have been conducted on adopting healthy lifestyles during postpartum care. This study aimed to implement "NEWSTART® Lifestyle Program" -- Nutrition, Exercise, Water, Sunlight, Temperance, Air, Rest, and Trust in God, developed by Weimar Institute of Health and Education in the United States in 1997, in the daily lives of

women undergoing postpartum care. Through this program, the quality of the physical, psychological, and spiritual care of postpartum women can be improved, and the ultimate goal of realizing healthy lifestyles can be attained.

#### Purpose/Methods

A cross-sectional study was conducted from January 2011 to June 2015 in a postpartum nursing home that is affiliated with a hospital in Taipei. The participants were women who lived in the postpartum nursing home for 30 days or more after giving birth and were willing to participate in this study. According to the result of their assessment and their needs, the participants were provided with collaborative postpartum care by multiple professional teams, including psychological counselors, pastors, social workers, sports center personnel, art therapists, nutritionists, and health care professionals. The result of the postpartum care was evaluated using indices such as body mass index (BMI), exclusive breastfeeding rates, maternal confidence (measured using the Chinese version of the Maternal Confidence Questionnaire), postnatal depression (assessed using the Chinese version of the Edinburgh Postnatal Depression Scale), and the level of satisfaction with the nursing home.

#### Results

The results of applying NEWSTART in postpartum care from 2012 to August 2015 are listed as follows: (a) The average BMI of the postpartum women before they returned home from the nursing home was 25.2 in 2011; after NEWSTART was implemented, the

average BMI of these women when they checked into the nursing home was 25.1 and decreased to 23.9 before they returned home. (b) The exclusive breastfeeding rate was raised from 52% in 2011 to 55.6% after NEWSTART was executed. (c) The average maternal confidence score of the postpartum women when they checked into the nursing home increased from 25.9 in 2011 to 37.4 after NEWSTART was applied. (d) The percentage of participants with postnatal depression scores of ≥10 was 37% in 2011 but decreased to 3.4% after NEWSTART was executed. (e) The level of satisfaction with the nursing home was 90.9% in 2011 and increased to 93.1% after NEWSTART was implemented.

#### **Conclusions**

Applying NEWSTART through the collaboration of multiple medical teams effectively improved the quality of postpartum care and thereby enabled the postpartum women to adopt this healthy lifestyle. Nurses can apply the concept of a healthy lifestyle to health care to enhance the control that individuals, families, and societies exert over health determinants, enabling them to maintain their physical, psychological, and spiritual health.

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