Effectiveness of PDCA-based information Management System on Nursing Instructional Education

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Background:

Instructing patients to learn how to promote and maintain their own health status is the most important in the nursing process. Past, nursing staff required a lot of effort to organize, document and devote themselves to teaching. Nowadays, due to the advancement of information technology, the establishment of electronic medical databases and the use of a nursing clinical decision support information system can be tailored to individualized nursing instruction. Patient can receive professional care and improve the quality of care.

Purpose:

This research mainly focuses on whether to integrate the PDCA (Plan-Do-Check-Act) in the process of implementing the nursing instruction information system can improve the record integrity of the clinical nursing teaching instruction, and whether it can help improve patient-centered care, and with appropriate clinical nursing instruction.

Method:

In this study, the nursing process of all nurses in the emergency medical center, intensive care unit, and general ward of a medical center in the southern Taiwan are investigated and the retrospective review of data is used. In this study, recorded using of total of 11980 data and recorded using 48 months from three groups of auditors is analyzed. The results are obtained with data using descriptive statistics and one-way analysis of variance.

Results

The results of the study show that after the establishment of the nursing guidance and teaching system in the year of 2012, the completeness of auditing and nursing documentation in patient records of the three types of units has increased significantly year by year. The scores of guidance records integrity also showed a significant increase year by year, all reaching statistical significance ($P < 0.05$) .(figure 1,2)
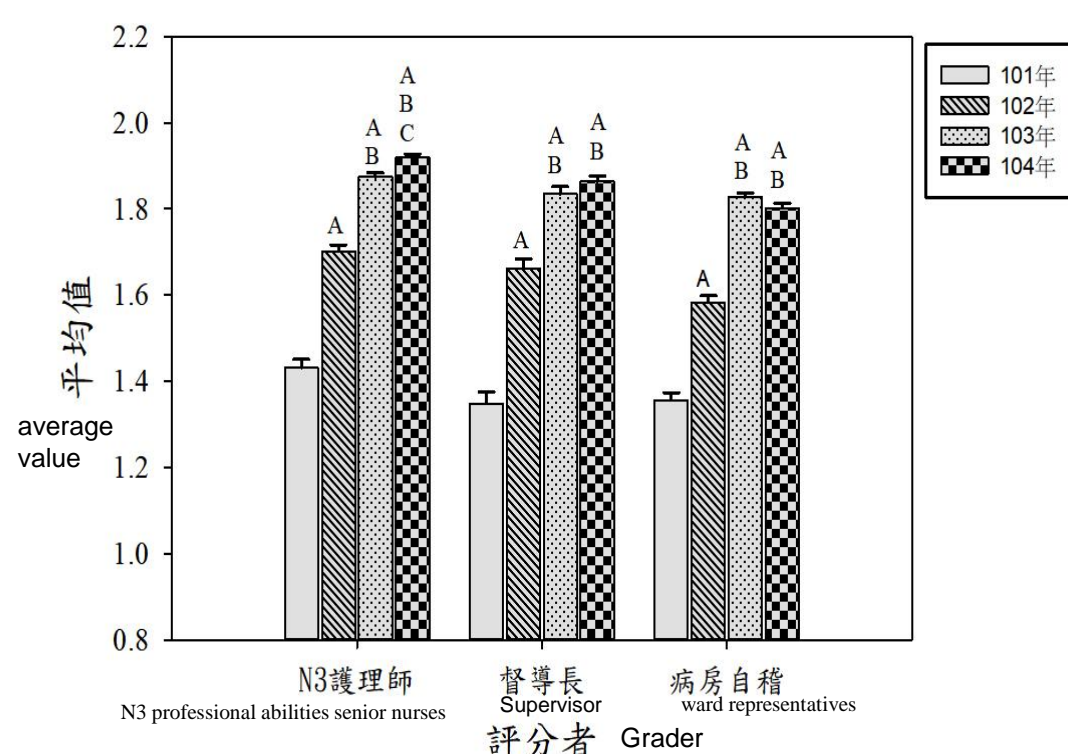

Figure1. Average scores of different scorers in different years
A：Significant difference compared to 101 years，$P < 0.05$
B：Significant difference compared to 102 years，$P < 0.05$
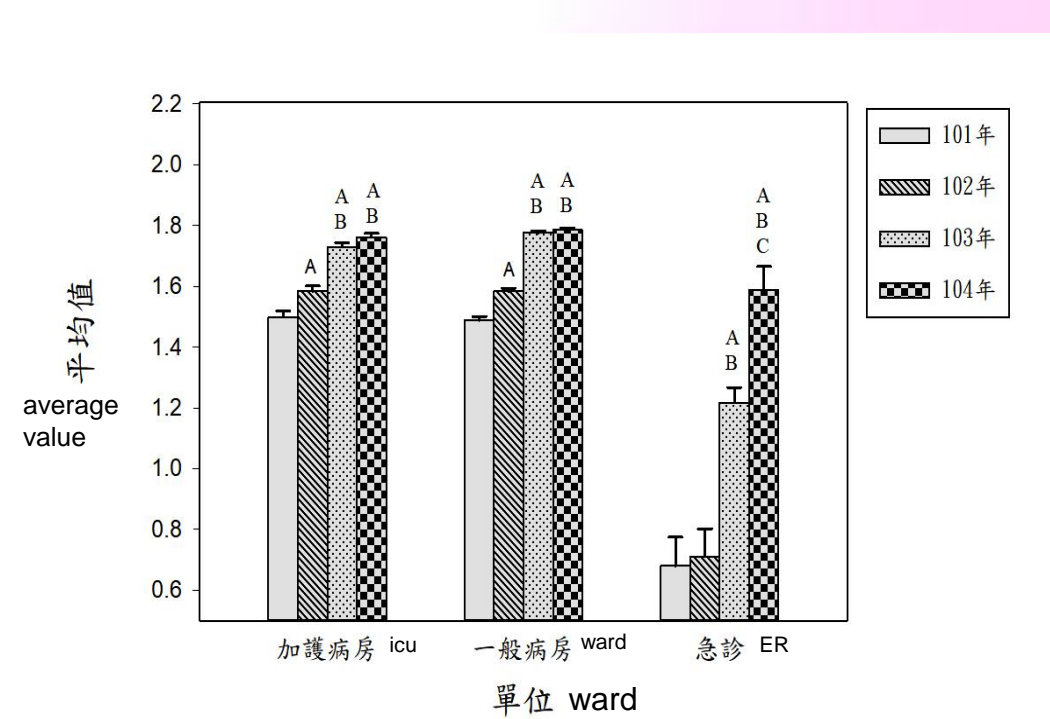C：Significant difference compared to 103，$P < 0.05$

Figure 2. Average scores of different ward in different years
A：Significant difference compared to 101 years，$P < 0.05$
B：Significant difference compared to 102 years，$P < 0.05$
C：Significant difference compared to 103，$P < 0.05$

Conclusions:

This study shows that after introducing the information system into nursing guidance, meaning using the PDCA cycle as a management framework has improved the integrity of the records of clinical nursing practice guidelines.

Comments:

It is recommended that the medical centers expand to diversity the development of electronic clinical practice guideline resources, with the combination of medical systems and other resources in the future. For example, the private telecommunications may provide distant health services to safeguard patient health information, so that patients' services can be seamlessly integrated.