

Development of a Performance-Based Clinical Competence Tool for Hospital Nurses in Taiwan

Shwu-Ru Liou, Ching-Yu Cheng, Hsiu-Chen Liu, Sui-Ling Tsai

Chang Gung University of Science and Technology, Chiayi, Taiwan

BACKGROUND

Clinical competence is important in patient safety and providing quality care. Cultivate nurses' competence becomes a main issue.

RESEARCH PURPOSES

To develop a performance-based competence system to increase and evaluate nurses' clinical competence, especially nurses' clinical reasoning/critical thinking abilities. Additionally, nurses' perceived competence was measured and the top skills that nurses were not confident performing were explored as well.

STUDY DESIGN

The study was an one-group pretest-posttest interventional design with convenience sampling. The developed tool was the intervention.

STUDY PARTICIPANTS

- Sixty nurses were recruited from three hospitals in Taiwan.
- The mean age and work experience of the participants was 28.65 and 7.2 years, respectively. 39.79% of them were in their first employment year. 93.33% had a bachelor degree. 40% worked in teaching hospitals and 90% worked in medical-surgical related units.

THEORETICAL FRAMEWORK

The system consisting six case-based scenarios was developed based on the Clinical Reasoning Model developed by Levett-Jones et al. Clinical reasoning was characterized as “a logical process by which nurses collect cues, process the information, come to an understanding of a patient problem or situation, plan and implement interventions, evaluate outcomes, and reflect on and learn from the process.”

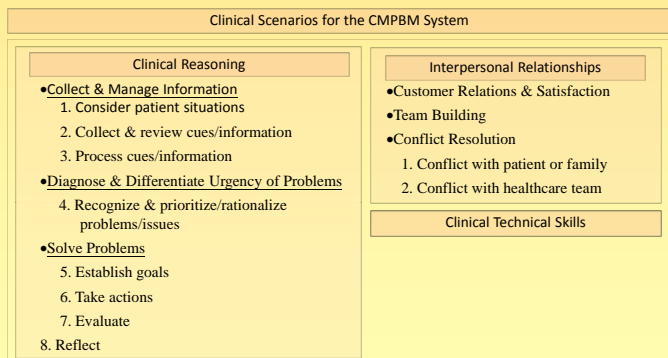


Figure 1. Development of the Clinical Scenarios for the CMPBM system based on the Clinical Reasoning Model

INSTRUMENT

Nurses' perceived competence was measured by the 15-item Clinical Competence Scale that was developed by the author. A higher score indicates higher level of competence. The Cronbach's alpha for the entire CCS was .81.

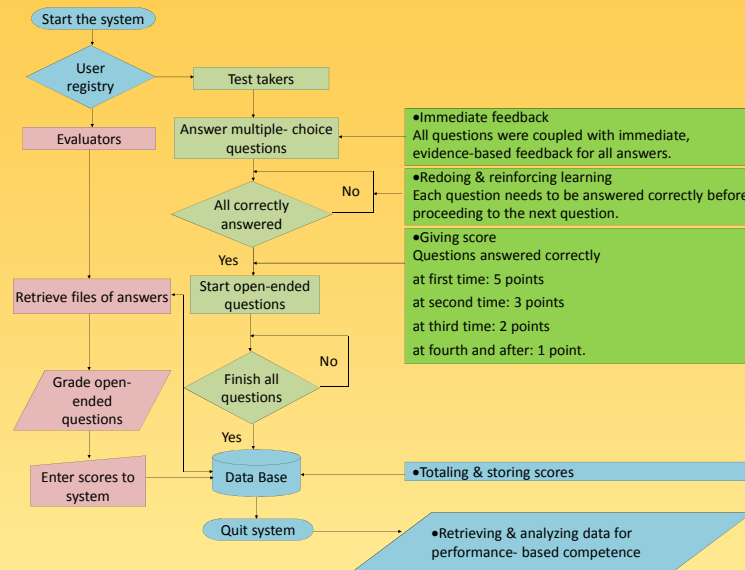


Figure 2. Construction of the CMPBM system

RESULTS

- In each scenario, sub-situations with questions, which are sequenced and focus on clinical reasoning/critical thinking abilities, were developed to reflect a patient's changing condition or deterioration. The total score of all scenarios are 510.
- The mean score of the CCS decreased significantly from pretest ($M=3.55$ on a 5-point Likert scale) to posttest ($M=2.91$, $t=2.91$, $p<.01$). Nurses' posttest score of perceived clinical competence, which was taken immediately after finishing the performance-based competence tool, was significantly lower than the pretest score.
- The mean score of the performance-based competence tool was 317.76 which was under the requirement score 336 (reaching 70% of the total score is a satisfaction level).
- The top five unconfident clinical skills of performing for nurses were reading EKG, performing CPR, venipuncture, and performing blood transfusion.

CONCLUSIONS

- Nurses over-estimated their actual performance abilities in the real world. After completing the developed system, nurses can understand what is lack in performing competent patient care and therefore can increase their knowledge or skills. Nurse administrators are suggested to train nurses on those skills that nurses are not unconfident performing.
- Further research in understanding nurses' weakness of abilities is needed to provide information for nursing administrators to design appropriate continuing education/training for nurses.