Development of a nursing course to enhance clinical reasoning ability of students

Ching-Yu Cheng, Shwu-Ru Liou, Hsiu-Chen Liu
Chang Gung University of Science and Technology, Taiwan

New graduate nurses were regarded as lacking of abilities in clinical reasoning or identifying/managing patients’ critical situations in a quick and appropriate assessment and decision-making. This issue seriously compromised patient safety and emergency rescue. Therefore, this study purposed to develop a course to enhance nursing students’ competence in clinical reasoning, decision-making, and integrated case cares. To achieve the goal, we particularly emphasized recruiting faculties who must be comfortable with and understood the creative and challenging role of the teacher in this course, rather than traditional role of instructor. The team consisted of faculties in school, senior medical doctors and senior clinical nurse practitioners who were qualified to lecture. Team members held weekly meetings to discuss and familiarize the course design including curriculum, contents, evaluation methods, and plans for implementation. The course included three major pedagogies: series and progressive case scenarios embedded with test questions, concept mapping, and team-based learning, which purposed to promote students' ability in application of knowledge rather than the recall of isolated facts and increase students' level of confidence and competence in diagnostic reasoning. To evaluate case scenarios, the most essential element of the course, three experts in emergency-intensive care or medical-surgical fields and owned an average of 9.2 years of clinical experience were invited. Results showed both the item and scale CVI were 1.0. In addition, all experts either responded with strongly agree or agree on questions asking about each scenario's closeness to the clinical real situations, importance to clinical care learning, and meaningfulness to patient care learning. We compared test scores of 30 clinical nurses of more than two years of clinical experience and those of 30 student nurses. Results showed that the known-groups validity was confirmed (p<0.001). Score difference was also shown on the sub-sections of the scenarios: recognizing problems (p<0.001), diagnosing and differentiating urgency of problems (p<0.001), and managing problems (p=0.03). The two-week test-retest reliability was evidenced by nursing students' test scores (r=0.47). These findings indicated that the scenarios could adequately reflect the purport of clinical reasoning competence. The developed case scenarios apparently were close to real clinical situations and suitable for courses to enhance students' clinical reasoning ability.

Biography
Ching-Yu Cheng has completed her PhD from the University of Texas at Austin, USA. She is currently a Faculty Member at the Chang Gung University of Science and Technology in Taiwan. She has published more than 30 papers in reputed journals and has conducted many researches. Her researches focused on women's health including bio-behavioral studies and nursing education.