



A confirmatory factor analysis study of new nursing personnel's first aid ability indices

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Abstract:

Aim: Patient safety is a concern for medical health-care communities worldwide. Although new nursing staff have completed first aid technical courses and possess a Basic Life Support license, they still do not meet the ability to instantly recognize and handle medical emergencies; this could thread the safety of patients. Therefore, recognizing first aid ability of new nursing staff crucial for maintaining patient safety. Nursing personnel are usually the first to detect changes in patients' conditions and subsequently initiate first aid procedures. The aim of this study was to develop an instrument that measures the first aid ability of new nursing staff.

Methods: This research adopted a cross-sectional study design. The study sample was from a medical center in northern Taiwan who were undergoing a training course for new nursing staff. The first stage was the initial drafting of the questionnaire contents, then validity evaluation by a Delphi expert panel, and finally conducted confirmatory factor analysis. SPSS version 22.0 applied to conduct descriptive statistical analysis of the variables and AMOS version 22.0 was used to conduct CFA.

Results: After revised the content by the expert panel implemented, the final New Nursing Personnel's First Aid Ability scale formed. The finalized version of the questionnaire contained five ability domains, namely critical thinking, coping of emergency, technical operations in



clinical emergencies, cooperation, and communication; the overall content validity index of the questionnaire was .992. The results of CFA indicated the standardized factor loadings for factors with convergent validity ranged from .655 to .903 and the Cronbach's α for overall first aid ability was 0.920. The CFA results revealed that the five domains construct validity and overall goodness-of-fit.

Conclusion: The results indicated that the developed measurement scale with high reliability and validity, and the five domains as objective indices for evaluating the first aid ability of new nursing staff.

Biography

Sheida Naderi-Azad has completed her Bachelor of Science in Microbial and Environmental Pathophysiology from University of British Columbia and is currently an MD Candidate at the University of Toronto Faculty of Medicine. She has an expertise in immunology and oncology, with a deep interest in changing metabolic demands with aging. She has most recently completed a summer studentship at the Dana Farber / Harvard Cancer Centre. She has had numerous published articles and presentations on cancer therapeutics, inflammatory conditions and women's health.

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