The Role of Public Health Nurses

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Description

Unfolding case-based learning is an effective strategy for nursing students to narrow the gap between classroom learning and clinical practice. Little is known about whether unfolding case-based learning can be applied effectively in learning health assessment skills for undergraduate nursing students in China. To determine whether using unfolding case-based learning for undergraduate nursing students learning health assessment skills enhanced academic achievement, critical thinking and self-confidence, in comparison to traditional learning methods.

A quasi-experimental design was used in this study. One hundred and fifteen undergraduate nursing students were recruited using convenience sampling from a medical university in southern China. They were assigned to an intervention group (n = 54) receiving unfolding case-based learning of health assessment skills, or a control group (n = 61) using traditional learning methods based on students' choices. Learning outcomes were evaluated by students' academic achievement, critical thinking and self-confidence. Data for critical thinking and self-confidence were collected before and after using the teaching strategies.

The academic achievements of undergraduate nursing students in the intervention group were better than those in the control group. The total average scores of critical thinking (272.51 vs. 266.47) and self-confidence (24.92 vs. 21.04) for nursing students in the intervention group were also higher than those in the control group after implementing teaching strategies. There were statistical differences in the theory test (P = 0.041), skill test (P = 0.013), critical thinking (P = 0.008) and self-confidence (P = 0.036) between the two groups. Additionally, the statistical significance of the scores for critical thinking (264.36 vs. 272.51, P < 0.001) and self-confidence (18.76 vs. 24.92, P < 0.001) before and after teaching strategies were also observed among participants in the intervention group, but not in the control group (P = 0.143, P = 0.738).

Unfolding case-based learning may be effective and suitable for undergraduate nursing students learning health assessment skills. The findings of this study provide useful information to nursing teachers for the development of unfolding case-based learning when teaching other nursing skills to undergraduate nursing students.

Case-based learning is an instructional method within the context of student-centred learning that facilitates learning effects using case studies. Unfolding case-based learning is an adaptation of case-based learning and is popular in medical and nursing education. Although favourable effects of case-based learning have been reported in nursing education, it has some shortcomings. For instance, all information related to a case is available to the student and all scenarios are provided to them all at once. However, in reality, patient illness is gradually displayed following the sequence of a patient's illness journey in response to disease and symptoms and signs appear accordingly. Therefore, the unfolding case with multiple scenarios seems to be more appropriate for developing nursing knowledge and skills for students. The information of an unfolding case is incompletely designed, which prompts students to apply prior knowledge, clinical skills and critical thinking to make reasonable clinical decisions.

Unfolding Case

Unfolding case-based learning is typically used in theoretical teaching or lectures. As nursing care is a practice-based profession, the development of nursing skills therefore depends on laboratory and clinical practice. While an unfolding case in a laboratory class environment contributes to theoretical knowledge, it can be transferred into clinical practice for nursing students, which could help students become proficient at nursing skills and cope with the complicated clinical settings.

The teaching effects of unfolding case-based learning have been reported in some studies. For instance, Mills et al. (2014) conducted a study to evaluate the level of satisfaction of freshman nursing students who received an unfolding case study in a simulated clinical setting while learning clinical skills. The results showed high positive scores in all sections of the student survey, providing quantitative evidence of students' satisfaction with all elements of the teaching model. Qualitative data from interviews also support this claim. A study by McCormick showed that unfolding case learning could improve knowledge of Parkinson's disease for nursing students and increase their ability to analyse complex clinical information. Jiang et al. evaluated the efficacy of unfolding case learning in teaching stroke nursing to undergraduate nursing students and found that it improved undergraduates' experience of the whole process of stroke patient care and strengthened their sense of real clinical setting experience.

Application of Unfolding Case

While the application of unfolding case-based learning mainly focuses on medical, surgical, or geriatric nursing skills, little is known about whether unfolding case-based learning can be effectively applied for learning health assessment skills. Health assessment is the first and most critical step of the nursing process and the accuracy of assessment data affects all other phases of the nursing process. Health assessment is a compulsory course in undergraduate nursing programs in China. Usually, health assessment skills are taught using traditional teaching methods. However, the learning outcomes of health assessment skills for students using this teaching method are suboptimal. An investigation of teaching effects by our research team found that over 50% of students were afraid to perform physical examinations for real patients due to inadequate practice in real clinical settings; they had difficulty in making nursing diagnoses after finishing health assessments because of a lack of critical thinking. Studies from Western countries have also revealed that physical assessments have troubled the nursing profession. The gap between theory-based learning and experiences in clinical practice has resulted in a lack of confidence, anxiety, doubt and confusion among nursing students. Unfolding case-based learning is an appropriate strategy to close the gap between classroom education and clinical practice.

The purpose of health assessment is to reach nursing diagnoses and collaborative problems concerning patient health. To arrive at conclusions, nurses must be competent in diagnostic reasoning or critical thinking. Therefore, critical thinking and clinical reasoning skills should be integrated into the nursing process to improve students' problem-solving skills. However, few studies have focused on the critical thinking of nursing students in designing health assessment curricula. Therefore, this study was conducted to test whether using unfolding case-based learning for undergraduate nursing students learning health assessment skills would improve students' academic achievement, critical thinking and self-confidence, in comparison to traditional learning methods.