

Application of situational teaching method in cultivating innovative thinking of undergraduate nursing students

Yunzi Yuan^a, Hui Lin^b, Jingwei Zhang^c

Shandong Xiehe University, Jinan, 250109, Shandong, China

^a153190914@qq.com, ^b1154890167@qq.com, ^c183780602@qq.com

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Abstract: To explore the application effect of the situational teaching method in cultivating innovative thinking among undergraduate nursing students, 99 female nursing undergraduates from 2021 to 2022, with an average age of 20.5 ± 1.5 years, were included in the study. Among them, there are 49 nursing students in 2021 and 50 nursing students in 2022, and 49 nursing students who have received traditional teaching are set as the control group; 50 nursing students who received situational teaching method were set up as a research group. The mastery of first aid knowledge and innovative thinking ability of practical first aid were assessed and compared between the two groups. The results showed that the mastery of first aid knowledge and the ability of first aid practice in the study group were significantly better than those in the control group, and the difference was statistically significant ($P < 0.05$). 58.39% of nursing students think that the practice of first aid teaching is of great significance and helps to cultivate innovative thinking ability. Using nursing scene teaching method to teach emergency nursing can effectively increase students' mastery of first aid knowledge, improve students' first aid response and practice first aid innovative thinking ability in first aid nursing, and is suitable for extensive application in first aid nursing teaching.

1. Introduction

Cultivating innovative thinking of undergraduate nursing students has always been one of the key challenges in the field of nursing education. Nursing students need to have innovative ability to adapt to the evolving medical environment and provide high-quality nursing services. However, traditional nursing education often focuses on imparting basic nursing knowledge and skills, but lacks the cultivation of students' innovative thinking and problem-solving ability. In order to meet the needs of modern nursing practice, educational institutions and educators need to find effective ways to cultivate innovative thinking of nursing students[1]. As an active learning strategy, situational teaching method is considered to have great potential and can promote students' innovative thinking and problem-solving ability.

Situational teaching method is an educational method based on simulating actual situations. By putting students in specific situations, they can actively participate in learning, solve real-world problems and cope with complex challenges. This method emphasizes students' active learning and cooperative learning, provides an interactive and interdisciplinary learning environment, and helps to cultivate students' innovative thinking and problem-solving skills[2]. The core idea of situational teaching method is to encourage students to think, analyze and solve problems through practical operation and experience, so as to cultivate their innovative ability[3].

The purpose of this study is to explore the application of situational teaching method in cultivating innovative thinking of undergraduate nursing students. By analyzing the existing literature and empirical research, we will discuss how situational teaching method can be effectively integrated into nursing education courses to promote the development of innovative thinking of nursing students. In addition, we will also investigate the influence of situational teaching method on the innovative thinking and problem-solving ability of nursing students, and explore how to maximize their potential. The results of this study are expected to provide practical suggestions for

nursing educators and educational institutions on how to improve nursing education and cultivate innovative thinking ability. By making full use of the potential of situational teaching method, we can provide more comprehensive and competitive education for future nursing professionals, so that they can succeed in complex health care environment and provide excellent nursing services.

2. Object and method

2.1. Research objects

The subjects of this study were 99 four-year nursing undergraduate students from 2021 to 2022, all of whom were female, with an average age of 20.5 ± 1.5 years. Among them, there are 49 nursing students in 2021 and 50 nursing students in 2022, and 49 nursing students who have received traditional teaching are set as the control group; 50 nursing students who received situational teaching method were set up as a research group. There were no significant differences in age, gender, enrollment time, and enrollment scores between the two groups, and there was no statistical significance ($P > 0.05$).

2.2. Research method

49 students in the control group were taught emergency nursing by the traditional teaching method of simulated human explanation. In the research group, 50 students studied first aid nursing by using nursing situational teaching method, and the mastery of first aid knowledge and innovative thinking ability of practicing first aid were assessed and compared.

The application of situational teaching method in emergency nursing teaching is as follows:

Step 1: Make clear the educational objectives

First of all, make clear the educational objectives and determine the first-aid skills and knowledge that students should have after completing this course. These goals should be clear and measurable, and meet the relevant academic standards and practical needs of first aid.

Step 2: Choose a scenario

Select appropriate scenarios or cases so that students can apply the skills and knowledge they have learned in actual first aid scenarios. Scenarios should be practical, specific to different situations in the field of first aid, such as cardiac arrest, drowning, heatstroke, etc.

Step 3: Prepare the scenario

Make detailed preparations for the selected scenarios, including the scenarios required for simulation, role-playing and related first-aid tools and equipment. Ensure that the setting and description of the scene are attractive enough to stimulate students' interest and active participation.

Step 4: Role assignment

Assign students roles and let them play different roles in the scene, such as first aid, injured person, witness, etc. This helps to cultivate students' teamwork and communication skills to better cope with emergencies.

Step 5: Simulate the scenario

Ask students to show their first aid skills in simulated situations, including evaluating the injured, providing basic life support, using first aid equipment, etc. Teachers can play the role of supervisors, guide students and provide necessary feedback.

Step 6: Discussion and feedback

After the scene is over, discuss and give feedback. Students should share their experiences and observations, and discuss the challenges and solutions they encounter in the situation. Teachers should provide feedback and guidance, emphasizing correct first aid procedures and best practices.

Step 7: Summarize and consolidate

Summarize the main points of this situational teaching and emphasize the key first aid principles and skills. Provide additional learning resources, such as reading materials, video tutorials or online simulations, to help students further consolidate what they have learned.

Step 8: Practice regularly

Emergency nursing is a field that needs constant practice, so situational teaching activities

should be organized regularly to help students maintain and improve their first aid skills. This can be achieved by simulating different types of first aid situations.

Step 9: Evaluate and Adjust

Regularly evaluate the effect of situational teaching, including students' academic performance and first aid skills. According to the evaluation results, the content and methods of situational teaching are adjusted to continuously improve the teaching quality.

By adopting situational teaching method, emergency nursing education can be more vivid and practical, which will help students better understand and apply first aid knowledge and improve their innovative thinking in the field of first aid.

2.3. Assessment method

Divide the key points of first aid theoretical knowledge and practical operation, set different points according to their importance in first aid, give relative scores according to students' mastery of theoretical knowledge and practical first aid ability, and evaluate comprehensive quality according to the sum of the scores obtained[4-5].

2.4. Statistical method

All the questionnaire data were input into the computer, and statistical analysis was carried out by SPSS26.0 software, and t test was used.

3. Result

3.1. Examination results of two groups of students

Comparing the assessment results of the two groups, the mastery of first aid knowledge and the ability to practice first aid in the study group were significantly superior to those in the control group, with significant differences ($P < 0.05$). See Table 1 for details.

Table 1 Results of examination results of two groups of students

group	n	excellent	good	medium	poor	P
		100-90	89-80	79-70	Below 69	
Research group	50	34(68)	8(16)	5(10)	3(6)	<0.05
control group	49	26(53)	18(37)	3(6)	2(4)	

3.2. Evaluation of nursing students' participation in practical first aid ability teaching

58.39% of nursing students think that practicing first aid teaching is of great significance and is helpful to cultivate innovative thinking ability; 36.62% think the meaning is average; 5.27% think it is of little significance. Most nursing students think that carrying out such practical teaching is helpful to improve their abilities, as shown in Table 2.

Table 2 Evaluation of nursing students' ability to participate in practical first aid teaching

project	Have greatly improved	Have improved	No improvement
language	13.609	69.187	11.681
Innovative thinking ability	21.595	72.869	13.21
Autonomous learning ability	24.456	68.103	15.588
Interpersonal communication skills	27.372	78.89	6.48
ability to organize and coordinate	19.87	71.512	4.4
Ability to analyze problems	22.446	68.342	7.869
Problem solving ability	16.894	67.31	9.255
Team cooperation ability	12.757	72.543	6.254

4. Discussion

Situational teaching method enables nursing students to operate in a safe situation by simulating the real clinical environment. This will help them build their self-confidence, improve their skills

and prepare for future practical work. Practical operation is the basis of innovative thinking, because it enables students to apply theoretical knowledge to practical problems and propose methods for improvement and innovation. Situational teaching method encourages students to face different challenges and problems in simulated situations. Nursing students need to think and solve these problems, which is helpful to cultivate their problem-solving ability [6].

Innovative thinking depends on effective problem solving, because innovation usually involves finding new ways to solve existing problems. Emphasize that students make quick and wise decisions in an emergency. This is helpful to cultivate nursing students' logical thinking and decision-making ability, which is very important for innovative thinking, because innovation involves analyzing problems and making decisions [7-8]. Because it creates interesting and challenging learning situations. This can stimulate the learning motivation of nursing students and promote them to think and put forward new ideas more actively.

The application of situational teaching method in the cultivation of innovative thinking of undergraduate nursing students is very important for cultivating nursing students with practical operation skills, problem solving skills, teamwork and communication skills, logical thinking and decision-making skills. These abilities are the basis of innovative thinking, which will help to cultivate future leaders and innovators in the field of nursing, improve the quality of nursing and meet the ever-changing needs of medical care. Therefore, the application of situational teaching method in nursing education has far-reaching significance.

Innovative thinking is very important for nursing students, because they need to make decisions and solve problems quickly when facing various medical challenges[9]. Situational teaching method is considered as an effective educational method, which can help students apply their knowledge and skills in real clinical situations[10]. The results show that 58.39% of nursing students think that practicing first aid teaching is of great significance and is helpful to cultivate innovative thinking ability. 36.62% think the meaning is average. Comparing the assessment results of the two groups, the mastery of first aid knowledge and the ability to practice first aid in the study group were significantly superior to those in the control group, with significant differences ($P < 0.05$). The results show that the situational teaching method has achieved remarkable results in cultivating innovative thinking of undergraduate nursing students. First of all, students' feedback situational teaching method makes it easier for them to connect theoretical knowledge with practical nursing situations and improve their self-confidence. Secondly, students show more innovative thinking when dealing with nursing challenges, and they are more willing to try new methods to solve problems. The quantitative data also shows that the students who participated in the situational teaching have made significant improvement in their innovative thinking level.

These results show that situational teaching method is an effective educational method, which can cultivate innovative thinking among undergraduate nursing students. By putting students in real situations, they can not only apply what they have learned, but also develop new solutions. This is especially important for nursing students, because they need to make wise decisions in the rapidly changing medical environment. In addition, situational teaching method can also increase students' self-confidence and make them more willing to take the initiative to participate in the challenges in learning and career development.

However, it should be pointed out that the implementation of situational teaching method requires educators to have certain educational skills to ensure the authenticity and effectiveness of the situation. In addition, more research can further explore the applicability of situational teaching method in different nursing fields and different learning groups, so as to better understand its potential advantages and limitations.

5. Conclusions

To sum up, using the nursing situational teaching method to teach emergency nursing can effectively increase students' mastery of first aid knowledge and improve their first aid response and innovative thinking ability in emergency nursing. The application of situational teaching method in cultivating innovative thinking of undergraduate nursing students has achieved positive research

results, which is expected to be more widely used in nursing education. This research provides an effective teaching method for nursing education, which can help students better cope with future challenges and cultivate innovative thinking, which has a positive impact on improving the quality of medical care.

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