

# Application of Simulation and Simulation Nursing Training in Nursing Teaching in Colleges and Universities

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**Keywords:** simulation and simulation nursing training; colleges and universities; nursing teaching; application value

**Abstract:** Objective: To discuss the application value of simulation and nursing training in nursing teaching in colleges and universities, to explore the teaching effect of simulation and nursing training through statistical investigation, and to provide evidence for improving the teaching methods of nursing majors in colleges and universities. Methods: 100 students from 2013 and 2014 of our nursing major were selected as the survey subjects. They were randomly divided into experimental group and control group. They were simulated by simulated nursing practice and conventional teaching methods, and the actual teaching effects of the two groups were compared. Results: According to statistics, students' interest in learning, communication skills, clinical nursing thinking, and self-learning ability were significantly improved, and the evaluation of teaching experience was also superior to the conventional teaching method. Discussion and suggestion: According to the statistical results, the quantitative analysis of the application of simulation and simulation nursing training in nursing teaching in colleges and universities is made, and the application advantages of simulation and nursing training are expounded, and suggestions for promoting the reform of nursing teaching in colleges and universities are put forward.

## 1. Introduction

With the development of China's medical and health undertakings, the nursing industry is booming. Under the premise of increasing market demand, the enrollment scale of nursing majors in higher education institutions has gradually expanded. However, as a practical professional, if the lack of sufficient clinical practice opportunities, students' professional ability will inevitably be affected, especially in recent years, people's awareness of doctors and patients is constantly improving, and the relationship between doctors and patients is constantly strained. Under the circumstance, how to improve the practical ability of nursing students, use professional literacy to cooperate with medical treatment, and improve the relationship between doctors and patients has become an important goal of talent training in colleges and universities. Simulation and nursing training has been widely used in nursing teaching in colleges and universities in recent years. The school uses modern information technology to simulate realistic clinical situations, and cooperates with patients, beds, operating rooms and other hardware conditions for teaching. The process provides an intuitive and visual environment to ensure student engagement in the clinical care process. Such teaching mode is of great significance to the stimulation of students' interest in learning, the improvement of clinical nursing technology, the ability to adapt and the formation of cooperative spirit. Based on this, the author explores the application value of simulated simulated nursing training according to the survey and statistics of 100 students in a nursing college of a college. The results are as follows:

## 2. The data and methods

100 students from our school's nursing majors in 2013 and 2014 were selected as the survey subjects, including 63 in 2013 and 37 in 2014. They were randomly divided into experimental group and control group, with 50 people in each group, and a questionnaire survey was conducted. The statistical data were analyzed by SPSS20.0 software, and the general data of the two groups of

students were obtained. The average age of the experimental group students was  $20.13\pm 0.42$ , the average grade of nursing professional courses was  $80.81\pm 5.85$ , 25 people were “very interested” in the nursing course, 17 people were “general interest”, and “slightly interested” 6 people. “Not interested” 2 people. The average age of the students in the control group was  $19.13\pm 0.67$ , the average grade of the nursing professional course was  $79.81\pm 7.25$ , the “very interested” nursing course was 27 people, the “general interest” was 15 people, and the “slightly interested” 5 people, “Not interested in” 3 people. From the general data display, the two groups of statistical objects are not significantly different, and meet the random sampling requirements.

### 3. Method

The control group used conventional methods to conduct practical training for students. The experimental group adopts simulation and simulation nursing training. The training content mainly includes the experimental links of surgical nursing, internal medicine nursing, obstetrics and gynecology nursing, child nursing, basic nursing, emergency nursing, etc. The implementation methods are as follows:

Both teachers and students should prepare for the class before the simulation of nursing training begins. From the teacher's point of view, first of all, we should do a simulation and simulation of nursing teaching training, not only to understand the practical teaching links from a theoretical perspective, but also to improve the technical operation level to ensure scientific guidance for students in the course of training; in addition, teachers Case design and target construction should also be done, and cases should be selected according to the simulation simulation nursing requirements, and the case introduction design should be done well, the training teaching objectives should be improved, and the training teaching evaluation criteria should be clarified, so as to complete the quality of students in the simulated simulated nursing situation. Comprehensive considerations. From the student's point of view, according to the simulated simulation nursing training lectures issued by the teachers, the new knowledge should be previewed, and combined with the current practical operational ability, the cases will be analyzed and found in the theory and practice. The existing problems, and the integration of the problems, presented, discussed and answered in the simulation of nursing training.

Simulating the simulated nursing training environment requires that the experimental group students be divided into 10 groups of 5 people each, and the team leader should be arranged to communicate with the instructor. In the training, the teacher should first introduce the case according to the simulation simulation nursing environment. For example, in the teaching of cardiopulmonary resuscitation, the teacher should interact with the student to complete the review and thinking of the relevant theory; then, according to the simulation, the existence of the nursing situation exists. The problem, the group discussion; finally, the results of the discussion, while the teachers based on the training situation of each group to provide targeted guidance.

Cases related to the teaching content will be presented in the simulation simulation nursing situation, so that students can integrate into the situation as soon as possible. In the case teaching, the teacher must first introduce the case with the simulation scenario. For example, in the cardiopulmonary resuscitation training, the teacher describes the situation of a drowning person and guides the students to make basic judgments on the patient's situation; As a result, a cardiopulmonary resuscitation program is made. In this process, teachers should strengthen guidance and improve students' ability to cope with cases. Finally, give solutions and complete nursing through practical operations.

From the perspective of career development, we will guide the theoretical level, technical ability and emotional attitude of the experimental group students, and then improve the comprehensive teaching and training objectives. According to the nursing professional course, the teacher should make the following requirements for the students: master the basic nursing theory knowledge, and be able to make judgments quickly according to the patient's situation; skilled nursing operation process, improve the nursing practice effect; improve the strain response ability, and maintain in the emergency A calm and decisive attitude; a strong sense of responsibility, able to cope with problems

in nursing and improve patient satisfaction.

In the simulation of nursing training, teachers should flexibly design teaching methods according to the needs of teaching. According to the teaching practice process of the experimental group, the methods applied by teachers mainly include the combination of PBL and CBL, case teaching, and inspiration teaching. Each team explores solutions according to specific cases in the simulation scenario, and assists each other under the guidance of the teacher to achieve effective nursing of patients in the simulation scenario.

After a semester of teaching practice, professional evaluation of the two groups of students. The experimental evaluation method was used to compare the scores of the two groups of students. At the same time, combined with the performance of the experimental group students in the simulation scenario, the relationship between the experimental results and the teaching methods was analyzed.

The statistical data were analyzed by SPSS20.0 software. The measurement data was represented by (n); the measurement data was expressed by ( $\pm$ s), the statistical proportion was expressed by (%), and  $P < 0.05$  indicated that the difference was significant and statistically significant.

#### 4. Results

According to the comparison of the experimental results of the two groups of students in the final exam (see Table 1), we can find that the average score of the experimental group students is significantly higher than the control group.

Table 1 Comparison of experimental results between the two groups of students in the final exam

Group	n	final exam results
Control group	50	76.43 $\pm$ 14.58
test group	50	89.76 $\pm$ 16.32

According to the training of the experimental group students, the proportion of students who agree with the improvement of the comprehensive ability in teaching.

Table 2 Proportion of students in the experimental group who agree with the improvement of comprehensive ability (n,%)

Group	n	percentage
Learning interest	47	94
Communication skills	46	92
Judgment ability	42	84
Nursing thinking	48	96
Autonomous learning ability	47	94
Team spirit	45	90

Table 3 students experience evaluation in simulation and nursing training n(%)

project	In favor	neutral	disapproval
Strong situational experience	50(100)	0(0)	0(0)
Realistic operation	49(98)	1(2)	0(0)
Steps show clarity	45(90)	3(6)	2(4)
Clear theoretical knowledge	48(96)	2(4)	0(0)
Good memory	47(94)	2(4)	1(2)
Have confidence in practice	45(90)	4(8)	1(2)
hope to continue to participate in the training	50(100)	0(0)	0(0)

## 5. Discussion and recommendations

Based on the analysis of the above statistical data, we can find that the control group and the experimental group have significant differences in the test scores. Through simulation and simulation of nursing training, the students' experimental ability is obviously improved. In concrete terms, the experimental group students have achieved good development in terms of learning interest, communication ability, judgment ability, nursing thinking, self-learning ability and team spirit. The effect of the experience in the training is also obviously enhanced. The students clearly indicated in the survey that the situation experience is strong, the operation process is realistic, the steps are clear, the theoretical knowledge is clear, the memory effect is good, and the practice is confident. Therefore, the simulation nursing will be simulated. The training has a good teaching effect in the training of talents in the nursing profession.

From the teaching practice and statistical results analysis, we can find that compared with the traditional routine experimental teaching, the advantages of simulation and simulation nursing training are mainly reflected in the following aspects: (1) Improve the training situation, let students in patients, beds The created scenes are integrated into the clinical nursing work, which not only avoids the doctor-patient disputes directly caused by the patient's care, but also enhances the students' confidence, helps the students to successfully complete the psychological transition, and improve the nursing practice skills. (2) Improve the practical ability of teachers. In the simulation and nursing training, teachers need to break the traditional thinking, continuously learn and explore the training process, and combine the case and simulation to simulate the design of the nursing process. Targeted guidance, which effectively stimulated the professional enthusiasm of teachers, improved the ability of teachers to participate in simulation and nursing training, and adapt to modern training operations; (3) stimulated the initiative of students to actively explore, according to the experimental group Students' observation and assessment, we can find that students can accurately respond to cases according to the case in simulation and nursing training, break the passive participation in traditional teaching, and actively discuss with other members of the group, and are willing to The nursing knowledge gives the operation plan to reflect the value of the individual students in the cooperative learning; (4) cultivates the humanistic care of the students, in the nursing work, the relationship between the patient and the medical staff is often in the opposite direction, and to alleviate this In a situation, medical staff must first strengthen their humanistic qualities and give patients more Solution and care, in the simulation scenario, students can truly experience the patient's pain, and stimulate their sense of responsibility as a medical staff, respect the patient's right to life, minimize the suffering of patients, and form a basic quality of medical staff; (5) Improve the teamwork ability of students. Nursing work usually requires the strength of a team. In simulation and nursing training, teachers inspire students to participate by designing relatively complex patient cases, emphasizing teamwork. With tacit understanding, in the situation integration and nursing operation, the students can continue to work together, improve the understanding of the team, and work together to complete the nursing work; (6) exercise the judgment ability of the students, the nursing work often faces some emergency situations, and the medical care Accurate and rapid judgment of personnel can increase the chances of patients being rescued. In simulation and nursing training, teachers use some typical cases to guide students to make the first judgment quickly and maintain a stable mentality in the face of emergency. Provide effective conditions for treatment; (7) improve students' The proficiency of the process, compared with the traditional explanation and memory, in the simulation of nursing training, the teacher will combine the theory and practice process, the students participate in the nursing under the guidance of the teacher, and according to the nursing The problems that arise in the timely guidance, thus avoiding the boring nature of the theoretical explanation, improving the mastery of the students' nursing process, cultivating the students' good mentality and improving their ability to cope with emergencies; (8) Transformation Teaching concept, in the simulation and simulation nursing training, teachers and students can clearly understand the effect of training, and understand the effective way of combining theory with practice. Through the investigation of the experimental group students, we can discover the change of students' learning concept, that is, more Willing to

participate in the training, and hope to provide nursing ability in the training, such teaching needs will inevitably promote the adjustment and transformation of the teaching model, providing a basis for the training of nursing professionals.

In short, through investigation and research, we found that simulation and nursing training has important practical value in the teaching of nursing majors in colleges and universities. Schools should strengthen the construction of simulation and simulation nursing training bases according to the needs of applied talents in the current development of nursing industry in China, and provide students with a more professional and more perfect training system, and then improve their professional ability in the simulated situation.

## References

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