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Research on the Innovation of Practical Training Teaching in Nursing Programs under the Perspective of Disciplines

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Abstract: *In the curriculum system of higher vocational nursing specialty, the basic training teaching of basic nursing courses is particularly important. Therefore, in order to improve the practical operation level of nursing students, a research on the innovation of practical training teaching of nursing professional courses under the discipline perspective is proposed. Firstly, the specific content of the practical training course of Basic Nursing and the objectives of the course are analyzed, and then the CDIO teaching mode under the disciplinary perspective is explained. The significance of the practical training teaching innovation of nursing courses under the disciplinary perspective is described in terms of the diversified combination of teaching methods and the effective improvement of teachers' teaching ability. Finally, specific innovative paths are proposed, including creating a situational teaching atmosphere, creating a task-oriented practical training classroom, and reforming practical training evaluation indexes. It is unfolded in improving the effect of practical training teaching in nursing and improving the operational skill level of nursing students.*

Keywords: *disciplinary perspectives; nursing program; practical training; pedagogical innovations*

1. Introduction

In recent years, with the development of undergraduate nursing education in medical schools and colleges, the education and training goal of undergraduate nursing students in China has shifted from "scientific" to "applied", and more nurses are willing to choose to enter clinical work [1]. As part of the nursing education program, practice teaching is an important part of cultivating the clinical practice ability of nursing students, and also lays an important foundation for nursing students to obtain clinical nursing qualification after graduation [2-3]. The Ministry of Education has issued the "Guidelines for Deepening Educational and Teaching Reform in Colleges and Universities under the Central Government", which clearly states that the core task of higher education is to improve the quality of talent cultivation, and the National Nursing Career Development Plan also clearly states that the quality of nursing talent cultivation should be comprehensively improved, and focus on cultivating the spirit of innovation and the ability of nursing practice [4-5]. Over the years, how to cultivate competent higher nursing personnel to meet the needs of society and clinical needs, so that higher education and clinical care combined, has been an important issue for nursing educators to solve [6]. The practical training teaching of Basic Nursing is an indispensable stage for nursing students to master professional skills, and it is an important way to cultivate nursing students' professional skills and comprehensive quality, which is related to the ability to reserve effective human resources for the real medical environment [7]. Basic Nursing" practical training teaching in the teaching content, more colleges and universities in nursing students into the clinical practice before the nursing practical training teaching, but at present our country has not yet formed a unified teaching standards, many colleges and universities just repeat the basic nursing laboratory teaching content, single nursing skills training, this teaching method can not be a better solution to the contradiction between the integration of knowledge and the application of knowledge, the single skills exercise, make the nursing students mechanically practice the operation process, make the nursing students to practice the operation process mechanically [8-9]. Nursing students mechanically practice the operation process, in the face of complex clinical problems, it is difficult to dialectical treatment. And the traditional teaching method is based on the teacher's lecture and students' passive listening to the lecture. Some studies have shown that the traditional teaching mode of "Basic Nursing" practical training teaching is heavy on knowledge memorization and light on practical application, which is not conducive to cultivating nursing students' critical thinking ability, adaptability

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and other comprehensive qualities of the way to emphasize the problem as the core, which is not conducive to the completeness of the knowledge, systematic learning, and the human and financial resources are more costly. Case-based teaching method is case-based and problem-oriented, which is still insufficient for the cultivation of nursing students' knowledge and knowledge application ability. Therefore, how to carry out teaching reform, realize the integration of theoretical teaching and practical teaching, and cultivate high-quality comprehensive and applied talents is an important issue facing nursing teaching. At present, some colleges and universities have introduced advanced information technology teaching equipment, implemented teaching reform, and achieved better results, such as high simulation simulator teaching, virtual nursing practical training environment teaching, etc., but after all, the teaching equipment is expensive, and can't be popularized in all colleges and universities; and it needs to be taught by lecturers, lab technicians, and introduce more teachers' resources, so that many colleges and universities are still adopting the traditional teaching methods. Therefore, the practical training teaching of Basic Nursing needs to find a teaching mode that is easy to implement and can integrate nursing theory teaching with practical teaching, and can effectively cultivate students' critical thinking ability, independent learning ability and other comprehensive qualities.

2. Definition of concepts

2.1 Practical Training Program in Basic Nursing Science

The practical training course of Basic Nursing Science is a course to cultivate the comprehensive ability of nursing students, which is a bridge course between school education and clinical practice, and a comprehensive course that closely integrates theory and practice [10]. Practical training is characterized by both independence and comprehensiveness, and its independence refers to the training of special vocational skills, and its comprehensive character refers to the need to integrate multidisciplinary theories and professional skills[11]. In fact, the knowledge of one or a few professional theory courses often can not meet the needs of practical training teaching, the synthesis of theoretical knowledge of different subjects is to meet the need for practical training teaching must be guided by the theory of multiple courses, the focus of the synthesis of different skills composed of the basic skills of the profession "Basic Nursing" is divided into two phases of teaching and practice, the first phase focuses on the learning content is the general nursing, basic knowledge, basic skills; the second phase of the learning content is the general nursing, basic knowledge, basic skills [12]. The first stage focuses on the general basic knowledge and basic skills of nursing; the second stage is practical training teaching, which mainly cultivates the students' comprehensive application ability of theoretical knowledge, and the end of the general practical training enters the very important stage of clinical internship from theory to practice. In summary, the practical training teaching of Basic Nursing refers to the comprehensive vocational nursing skills training for students based on the training objectives in the professional practical skills training site before students enter the clinical internship. Nursing practical training teaching should not only focus on the simulation and reproduction of actual clinical scenarios to cultivate students' operational skills, but also integrate professional quality training in teaching, that is, the cultivation of scientific thinking and humanistic qualities.

2.2 CDIO teaching model in disciplinary perspective

CDIO teaching model, C stands for conception, D stands for design, I stands for implementation, O stands for operation, CDIO is the abbreviation of these four words. 2000, the model was developed by Edward, a professor at the Massachusetts Institute of Technology (MIT), and his team, the CDIO model is based on the lifecycle of the product from development to operation as a carrier, so that the students can learn in an independent, practical, and organic way between theoretical knowledge [13]. The CDIO model is based on the life cycle of product development to operation. Its main theoretical basis is the pedagogical theories of the philosopher and educator Dewey. The four stages of conceptualization, design, realization and operation are the main lines of the whole education model, from talent cultivation goals to teaching design, to teaching methods, to teaching evaluation and other aspects are based on conceptualization, design, realization and operation, which strings the whole education model into a whole [14]. The conceptualization stage is to understand the needs of the service object, according to the existing level of knowledge will be the needs of the object from the theoretical level of stripping out, the formation of a specific, image of the concept, therefore, the most important thing in this stage is creative thinking [15]. Design stage, that is, to produce a specific implementation plan, such as drawings, detailed operational flow charts, etc., the most important thing in this stage is meticulous.

ISSN 2663-8169 Vol. 6, Issue 3: 229-235, DOI: 10.25236/IJNDE.2024.060339

Realization phase, also known as the implementation phase, that is, the designed product is applied to the service users, or the flowchart and plan are converted into practical actions, the most important thing in this phase is lean. Operation phase, that is, according to the user's experience, maintenance and correction, the most important thing in this phase is to comprehensively measure and realize continuous improvement. Some research suggests that the core concept of the CDIO teaching model is specifically expressed in two aspects: one is to emphasize the real background environment of engineering activities; the second is to emphasize the product conception, design, implementation and operation of the complete life cycle, and to attach importance to the cultivation of engineers' systematic constructive qualities.

3. Analysis of the advantages of the application of the disciplinary perspective in the field of practical training and teaching in nursing courses

3.1 Promote the close connection between theoretical teaching and practical teaching

The goal of higher education is to cultivate talents with solid theoretical and practical abilities, who are able to cope with complex professional environments with a certain degree of self-learning ability, innovative ability, critical thinking ability, communication ability, etc. Therefore, an effective teaching method is very important. The core idea of the disciplinary perspective is "integration", which focuses on solving the long-existing dichotomy between theory and practice, knowledge and ability, hard quality and soft quality in the education process. "Soft" quality. Students can only integrate theory and practice learning, theory guide practice, sublimation of theory in practice, so as to better guide the practice, in order to continuously improve and better solve practical problems. Simply increasing the time for practical classes, or teachers teaching, students practicing, teachers teaching again, students practicing again, does not really reflect the "integration". Disciplinary perspective is a good integration of teachers' teaching, students' theoretical learning and skill learning, and centers on the technical teachers guiding students' thinking and then learning through small skills. First conceptualization stage, the students find problems by self-study, the teacher guides students to think, and then through small group discussion to understand the principle. In the design stage, students clarify each step of practical learning, teachers guide the drawing of flow charts. In the time stage, that is, the theory guides the practice, and students complete the skill training tasks according to the flow chart. The running stage is to realize the mutual integration of theory and skill learning by completing teacher evaluation, self-assessment, peer mutual evaluation of practical exercises, and summarizing and reflecting on the evaluation results.

3.2 Improvement of nursing teachers' teaching skills

Under the guidance of the disciplinary perspective, the teacher is no longer the center of teaching, but guides and encourages students to learn by themselves. The application of this teaching mode in the field of nursing education puts forward higher and more professional requirements for teachers, who need to be very familiar with the entire teaching content, carefully design the teaching plan in advance, draw up the teaching program, and design a typical teaching case integrating multidisciplinary knowledge points and problems of appropriate difficulty. During the teaching activities, teachers no longer just show and teach the skill operation, but guide students to pre-study before the class, guide students to draw operation flow charts, students discuss with each other and try to figure out the principles of the operation steps, and teachers supervise the learning progress. In the classroom, the teacher focuses on answering questions, inspiring students to think actively, and then sorting out and explaining the key points. After the teacher shows the students to practice the operation, the teacher organizes the completion of the teacher evaluation, student self-assessment, peer assessment, and summarize the evaluation results, and timely feedback information to the students. After the lesson, the teacher organizes the teaching materials, analyzes the existing problems, and accumulates experience for the next teaching implementation. To sum up, the teaching mode guided by subject perspective has improved teachers' teaching organization, teaching strategies, designing teaching process, inspiring students' thinking and other abilities.

ISSN 2663-8169 Vol. 6, Issue 3: 229-235, DOI: 10.25236/IJNDE.2024.060339

4. Innovative Paths of Practical Training Teaching in Nursing Specialty Courses

4.1 Create a situational teaching atmosphere

Basic nursing involves a large number of nursing theories and practical ways of operation, such as the need for students to understand the body physiological and psychological information in nursing, monitoring temperature, pulse, respiration, blood pressure and other vital signs of the changes in the body, can use the knowledge to maintain the patient's body clean, comfortable, to exclude physical, chemical, biological and other harmful factors on the body of the invasion to ensure that the treatment of nursing care safety, but also requires students to master the position of nursing, psychological care, dietary care and other knowledge, timely and effective cooperation with doctors to complete emergency treatment. Nursing care, dietary care and other aspects of knowledge, timely and effective cooperation with the doctor to complete emergency treatment. A lot of nursing knowledge is abstract and difficult to operate, which requires students to maintain patience and interest in nursing knowledge. Based on this, the creation of nursing situations in laboratory training teaching, through questions, games, role-playing, etc., can stimulate students' desire to learn actively, which is a nursing teaching reform.

For example, in the basic nursing "special oral care" practical training, in the practical training before the teacher can first use multimedia to play a video about human oral lesions, including oral infections and complications knowledge, the current medical technology including root canal treatment, dental implants, etc., the students know the importance of maintaining the patient's oral health, to improve their interest in the content of practical training. interest in the content of practical training. And in the course of practical training, the teacher can show a case of poor nursing care: "When a patient left the chair at the end of oral treatment, he tripped and fell over the tangled and sagging tubing after dental chair treatment, causing a fall." This case is presented to show students that it is important to do a good job of analyzing their surroundings in dental care to prevent accidents such as falls, lost instruments, accidental swallowing, and sharp instrument injuries. After analyzing the case, the students are then guided to practical training:① Prepare nursing tools, check the bed number, name and explain before nursing. ② Assist the patient to lie on the side or supine, with the head tilted to the side of the caregiver. ③Moisten the lips and corners of the mouth and assist the patient to rinse the mouth with warm water. ④ Perform examination and follow up care according to the examination. Therefore, in the teaching of basic nursing experimental practical training, through the construction of contextual classroom, changing the previous drawbacks of direct explanation of practical training steps, multimedia animation and real cases will make students pay attention to the details of the next operation, which not only improves the quality of the practical training, but also makes the students have a strong interest in the knowledge of basic nursing.

4.2 Create task-oriented practical training classroom

Nursing is a team-based task, and when students go to work, they need to learn various nursing skills in a collectivist atmosphere and master all the nursing operation routines stipulated by the hospital. Basic nursing curriculum standards also emphasize that in the laboratory practical training teaching, students should improve the ability of cooperative inquiry, in the specific problem solving to master the nursing operation skills. In the guidance of students in the laboratory training, teachers should establish the student's main position, according to their nursing and personality preferences to build a cooperative inquiry group, each group to arrange with the training content related tasks, required to be completed within the specified time, so as to give students a sense of urgency to learn, the group members in the communication and practice in the distribution of roles, breakthroughs in the task, so as to form a certain degree of cooperation and inquiry ability. It should be noted that the tasks set by the teacher should be in line with the cognitive law of students, so that from easy to difficult, so that students at every level can master nursing skills through personal operation, to create an efficient practical training classroom. The teaching model of the task-based practical training classroom is shown in the figure below.

ISSN 2663-8169 Vol. 6, Issue 3: 229-235, DOI: 10.25236/IJNDE.2024.060339

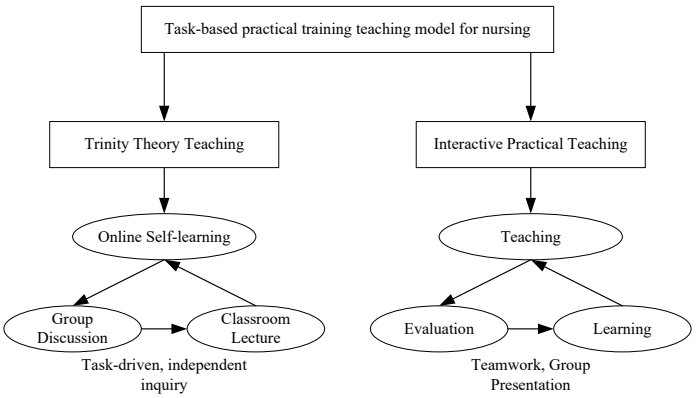

Figure 1: Teaching model of task-based practical training classroom

For example, in the "nasal catheter oxygenation" experimental training process, the teacher can first use about 10 minutes to introduce the content of the training, including how to moisten the front end of the nasal catheter, how to place the patient and choose a good position, how to remove the catheter after the completion of the care and stop the oxygen. After the students have mastered the basic operation, they can be set up into three inquiry groups and arranged for specific tasks:① Group 1: Assessment of the patient's task. Including how to check the nasal cavity for secretions, the patient's condition, consciousness, age, etc., the patient's hypoxic state, blood gas analysis results. The patient's hypoxia status and blood gas analysis results are communicated to the other team. ②Team 2: Pre-operation preparation tasks. Including nurse preparation, material preparation, patient preparation and environment preparation. Requirements for patients to do a good job of psychological care, so that they can eliminate the sense of tension, with the doctor to complete the oxygen operation. Group 3: Simulation of oxygen administration method task. Starting from confirming the patient and obtaining cooperation, the main process of oxygen administration by nasal cannula and stopping the administration of oxygen, presenting the whole operation process completely. After each group completes the task, they exchange their own tasks. Through the process of cyclic operation, all students can master the operation skills of nasal catheter oxygenation. The teacher rounds back and forth and records the practical training of each group with a record sheet, makes suggestions for operational problems, does not allow problems to be retained in the next practical training session, and improves the efficiency of practical training. By creating a task-based practical training classroom, it can effectively improve students' nursing cooperation and inquiry ability, so that when they encounter unexpected problems, they can think of solving them with the help of team power, and form a higher nursing literacy.

4.3 Reform the evaluation standard of experimental practical training

Evaluation is of great significance in the teaching of basic nursing laboratory practical training, and good evaluation can improve students' laboratory practical training quality and meet the requirements of nursing education. In the past, the evaluation standard of experimental practical training is relatively fixed, as long as the students can operate to complete a practical training skills can get the corresponding credit, this summative evaluation method makes many students can not master all the basic nursing practical training unit content. Combined with the basic nursing syllabus and other requirements, teachers should innovate the evaluation standard of experimental practical training, pay attention to the process assessment of students' practical training, and tap their nursing learning initiative through effective evaluation. In the evaluation method, it is necessary to incorporate the forms of student self-assessment, mutual assessment and group assessment, so that students can become the main body of evaluation, so that teachers can fully grasp the situation of each student. In the evaluation content, in addition to focusing on students' nursing operation skills, we should also pay attention to students' ability to communicate with patients, the ability to deal with medical emergencies, nursing teamwork, etc., so as to improve students' nursing literacy as a whole.

For example, in the "placement of patients in the prone position and the use of protective gear" experimental training, the teacher in addition to the placement of the prone position, the operation process, the use of protective gear in three aspects of the evaluation of student care, but also from the stabilization of the patient's mood, tell the patient to rest, proficient in the recording of relevant information and other aspects of the evaluation. After the completion of the operation in small groups,

ISSN 2663-8169 Vol. 6, Issue 3: 229-235, DOI: 10.25236/IJNDE.2024.060339

self-assessment and inter-group evaluation were used.

Evaluation mode, so that the group to identify the nursing gap items, so as to carry out targeted remediation, and finally the teacher then comprehensive assessment of the group performance, so that the evaluation process all-rounded, to meet the requirements of the evaluation of basic nursing practical training.

5. Conclusion

To summarize, the content of basic nursing laboratory training for senior nursing majors is many and varied, which requires students to master every nursing skill and apply it flexibly in nursing practice. The traditional method of basic nursing laboratory training is backward, teachers are used to lecture and demonstration mode, resulting in students' lack of in-depth understanding of the content of the training, and poor hands-on nursing skills. In the next step, basic nursing laboratory training should be based on the students' actuality, and appropriately incorporate some practical training methods that emphasize the students' subjective status, so that the students can experience thinking, questioning and argumentation in the experimental training, and form a certain nursing literacy.

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