

## Construction of nursing experimental teaching system based on clinical comprehensive thinking training

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**Abstract:** In this article, a set of nursing experimental teaching system integrating clinical comprehensive thinking training was constructed. It aims to enhance the clinical thinking and practical application skills of nursing students. This article emphasizes the important role of nursing in clinical practice and the core position of clinical comprehensive thinking in nursing practice, and reveals some problems in the existing experimental teaching of nursing, including the deficiency of clinical comprehensive thinking training and the gap between theory and practice. In order to achieve the established goal, the research adopts a comprehensive method. By combing the related research, the effective teaching experience and existing problems are summarized, and the meaning, elements and training path of clinical comprehensive thinking are deeply analyzed. Based on this, a series of specific strategies for the construction of experimental teaching system are put forward. The strategy covers the reform and innovation in curriculum, teaching content, teaching methods and evaluation system. This is of far-reaching significance for improving the level of nursing education and cultivating outstanding nursing talents.

### 1. Introduction

Nursing is an important part of medical and health system. Its influence in clinical practice can not be ignored [1]. Nurses not only directly participate in the treatment and nursing of patients, but also act as a link between doctors and patients, shouldering multiple tasks such as observing the condition, assisting in treatment and providing psychological support [2]. Clinical comprehensive thinking is the core ability in nursing work, which requires nurses to quickly integrate what they have learned, accurately judge the patient's condition and make a scientific and reasonable nursing plan when facing complex and changeable clinical situations [3]. This mode of thinking plays a decisive role in improving the treatment effect of patients and the quality and efficiency of nursing work [4].

At present, there are some shortcomings in nursing experimental teaching. On the one hand, the traditional experimental teaching focuses on the training of basic skills and the instillation of theoretical knowledge, ignoring the cultivation of students' clinical comprehensive thinking [5]. This makes it difficult for students to apply what they have learned flexibly in the face of real cases in clinical practice or early employment. On the other hand, the separation of theory and practice is also a big challenge for experimental teaching [6]. Although students have accumulated rich theoretical knowledge, it is difficult to combine this knowledge with practice in practice [7]. This leads to the scientific and effective nursing work being affected to some extent.

In view of this, this study is committed to building a nursing experimental teaching system based on clinical comprehensive thinking training. By innovating teaching contents and methods, students' clinical comprehensive thinking training is strengthened, so that students can be exposed to rich clinical cases and practical operations during their school days. In order to improve their clinical adaptability and overall quality.

## 2. Related theory

In the field of nursing experimental teaching and clinical comprehensive thinking training, a large number of researchers and experts have conducted in-depth research and practice and accumulated many valuable achievements [8]. By reviewing these documents, we can find that some universities and medical institutions have realized the importance of clinical comprehensive thinking in nursing work and made beneficial attempts in experimental teaching. These attempts include introducing clinical cases and simulated training to enhance students' operational ability and clinical thinking, and have achieved certain results. Nevertheless, some challenges remain. For example, the mismatch between experimental teaching and clinical needs, the singleness of teaching methods and the imperfection of evaluation system. These problems restrict the improvement of experimental teaching effect.

Clinical comprehensive thinking is an advanced cognitive ability. It requires nurses to analyze problems comprehensively and systematically in the nursing process and make accurate judgments and decisions quickly [9]. Its connotation includes the evaluation of patients' condition, the formulation, implementation and adjustment of nursing plan and so on. Its constituent elements include professional knowledge, clinical experience, logical thinking and critical thinking. In order to cultivate this thinking skill, we must adopt diversified teaching strategies and methods to guide students to improve constantly in practice. Such as case study, situation simulation, team discussion, etc.

The integration of nursing experimental teaching and clinical comprehensive thinking training not only conforms to the evolution direction of nursing education, but also has significant theoretical and practical value [10]. From the perspective of theoretical construction, this integration is helpful to improve the teaching structure of nursing, make experimental teaching closer to clinical practice and enhance the effectiveness of teaching [11]. Through clinical comprehensive thinking training, students' knowledge internalization and ability transformation can be promoted, and their innovative thinking and problem-solving ability can be cultivated. On this basis, this study will further explore the specific path and method of combining nursing experimental teaching with clinical comprehensive thinking training. This provides theoretical basis and practical reference for the establishment of nursing experimental teaching system based on clinical comprehensive thinking training.

## 3. Construction of nursing experimental teaching system based on clinical comprehensive thinking training

In the process of building a nursing experimental teaching system with clinical comprehensive thinking training as the core, this section first establishes the objectives and principles. The goal is to make students master solid nursing theoretical knowledge through experimental teaching, and at the same time have the ability to apply theoretical knowledge to clinical practice, especially clinical comprehensive thinking ability. In principle, it emphasizes the integration of theory and practice, attaches importance to students' initiative and creativity, and the openness of teaching process.

This section puts forward a series of specific construction strategies to achieve this goal, as shown in Table 1.

Table 1: Construction Strategies for the Nursing Experimental Teaching System Focused on Clinical Comprehensive Thinking Training

Strategy Dimension	Specific Construction Strategies
Curriculum Design	Enhance content closely related to clinical practice, ensuring students learn the latest clinical knowledge and skills
Teaching Content	Introduce real clinical cases for students to learn and practice in a simulated clinical environment
Teaching Methods	Adopt multiple innovative approaches. Specifically including: situational teaching, role-playing, group discussions, etc.
Evaluation System	Combine formative and summative evaluation to comprehensively assess clinical comprehensive thinking ability

As shown in Table 1, specific innovative teaching methods are included under the column of "teaching methods". It includes situational teaching, role-playing, group discussion, etc., which comprehensively shows the construction strategy of teaching methods in this article. In the course design, the content closely related to clinic is enhanced to ensure that students can learn the latest clinical knowledge and technology. In terms of teaching content, this article focuses on introducing real clinical cases so that students can study and practice in a simulated clinical environment. The teaching system adopts various innovative means to stimulate students' interest and enthusiasm in learning. And the teaching system includes a perfect evaluation system, which comprehensively evaluates students' clinical comprehensive thinking ability through the combination of formative evaluation and summative evaluation.

The core content of experimental teaching system lies in how to effectively integrate clinical case analysis, simulation training, teamwork and other teaching links. In clinical case analysis, this article thinks that we can select representative cases, guide students to analyze their illness, make nursing plans and simulate the nursing process. In order to cultivate their clinical judgment and decision-making ability. In the simulated training, the equipment such as simulated wards and dolls are used to create a real clinical environment, so that students can improve their skills and ability to deal with emergencies in practical operation. In teamwork, we should pay attention to improving students' communication and coordination ability and team spirit, and let them learn to give full play to their strengths in the team and accomplish their mission together through group discussions, team projects and other activities. Through the integration of these core contents, the experimental teaching system is more perfect. It can better cultivate students' clinical comprehensive thinking ability and lay a solid foundation for their future career development.

#### 4. Implementation guarantee and future prospect of experimental teaching system

After establishing the nursing experimental teaching system based on clinical comprehensive thinking training, ensuring its effective implementation has become a key link. Teacher training is the key. Schools need to regularly organize teachers to participate in clinical practice and professional training, improve their clinical experience and teaching ability, and ensure that they can integrate the latest clinical knowledge and technology into teaching. At the same time, strengthening the construction of teaching resources can not be ignored. This involves measures such as upgrading laboratory facilities, purchasing advanced simulation equipment and building a rich clinical case base. In order to provide the material basis for experimental teaching. Perfecting the teaching management system is equally important for the smooth operation of the experimental teaching system. Schools need to establish a sound teaching management system, clarify teaching objectives, teaching contents, teaching methods and evaluation system, and ensure the standardization and scientificity of experimental teaching.

The challenges and difficulties in the implementation of the experimental teaching system are shown in Table 2:

Table 2: Challenges and Solutions for Implementing the Nursing Experimental Teaching System

Challenge/Difficulty	Solution/Suggestion	Specific Implementation Measures
Insufficient clinical experience and teaching ability of faculty	Regularly organize teachers to participate in clinical practice and professional training	Establish a special fund to support teacher training, invite clinical experts to give lectures on campus, establish a mechanism for teachers to exchange clinical practice experiences
Lack of teaching resources	Upgrade laboratory facilities, procure advanced simulation equipment, and build a rich clinical case library	Develop a teaching resource update plan, seek government and corporate funding, and collaborate with medical institutions to share resources
Inadequate teaching management system	Establish and improve the teaching management system, clarifying teaching objectives, content, methods, and evaluation system	Establish a teaching management committee, regularly revise and improve the teaching management system, and strengthen teaching supervision and evaluation

As shown in Table 2, this article puts forward corresponding solutions and suggestions for

related challenges and difficulties. In view of each challenge or difficulty, this article puts forward more specific implementation suggestions or measures to better guide the implementation and improvement of the experimental teaching system.

The development direction of experimental teaching system will be more diversified and modernized. On the one hand, the school can continue to strengthen the close combination with clinical practice, and through more clinical practice opportunities and case analysis, students' clinical comprehensive thinking ability can be better exercised and improved. On the other hand, schools can actively use modern information technology to innovate teaching methods and means to improve the interactivity and interest of experimental teaching. These technical means include virtual reality and artificial intelligence. We will continue to pay attention to the progress and clinical needs of nursing discipline, update and improve the experimental teaching system in time, and contribute to training more outstanding nursing talents.

## 5. Conclusions

On the basis of in-depth exploration, this article successfully created a set of nursing experimental teaching system with clinical comprehensive thinking training as the core. The system establishes the objectives and principles of experimental teaching, and plans the construction strategy in detail, covering the innovation of curriculum arrangement, teaching content, teaching methods and evaluation system. With the help of this system, students' clinical comprehensive thinking skills can be effectively improved, and they can be urged to apply theoretical knowledge to clinical practice more efficiently. In the process of implementation, we deeply understand that it is a step-by-step process to cultivate clinical comprehensive thinking. It depends on the precipitation of time and continuous practice. The experimental teaching system established in this research has created an optimized learning platform for students. Through clinical case discussion, simulation operation, teamwork and other teaching activities, students gradually hone and improve their clinical thinking ability in practice.

Constructing and implementing the experimental teaching system of nursing based on clinical comprehensive thinking training is of far-reaching significance for improving the quality of nursing education and cultivating high-quality nursing talents. With the continuous improvement and popularization of this system, it will inject new vitality into the development of nursing education and provide strong talent support for the progress of clinical nursing work. The value of this study lies in that it provides a novel perspective and method for nursing experimental teaching, and also helps to improve the overall level of nursing education. By strengthening clinical comprehensive thinking training, we can cultivate more nursing talents with profound theoretical knowledge, skilled operation skills and excellent clinical thinking. These talents will better meet the needs of clinical work and provide a more solid guarantee for the health and safety of patients. This study will also inject new vitality into the sustainable development of nursing education and push it to a higher level.

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