

## Research and Practice on Clinical Teaching Methods for Nursing Interns in the Endocrinology Department of Traditional Chinese Medicine Hospitals: Postprint

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### Abstract

**Objective** To explore clinical teaching methods for nursing interns in the endocrinology department of traditional Chinese medicine hospitals and improve clinical teaching quality in endocrinology. **Methods** A total of 100 undergraduate nursing interns from traditional Chinese medicine universities who were assigned to the endocrinology department from June 2019 to June 2021 were selected as study subjects. They were divided into two groups based on different teaching methods: the control group (n=50) received the traditional nursing teaching model, while the observation group (n=50) received a case-based learning teaching model. Interns in both groups participated in assessments at the end of their internship, including theoretical tests and traditional Chinese medicine nursing technical operations. A self-designed questionnaire was used to survey intern satisfaction. **Results** The assessment scores for specialized theoretical knowledge and traditional Chinese medicine nursing operation skills in the observation group were higher than those in the control group, with a statistically significant difference ( $P < 0.01$ ). The satisfaction score for clinical teaching in the observation group was also higher than that in the control group, with a statistically significant difference ( $P < 0.01$ ). **Conclusion** The case-based learning teaching model can enhance the learning motivation of nursing interns and improve their clinical practice abilities.

## Full Text

# The Method and Practice of Clinical Teaching for Nursing Students in the Endocrinology Department of a Traditional Chinese Medicine Hospital

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## Abstract

**Objective:** To investigate and evaluate clinical teaching methods for nursing students in the endocrinology department of a Traditional Chinese Medicine (TCM) hospital, and to provide evidence for improving the quality of nursing education and practice.

**Methods:** Undergraduate nursing students from TCM universities who completed internships in our endocrinology department between June [year] and June [year] were enrolled as study participants. Based on different teaching approaches, students were divided into a control group (n=[number]) receiving conventional teaching methods and an observation group (n=[number]) receiving case-based teaching methods. All participants completed final assessments at the end of their internships, including theoretical examinations and practical evaluations of TCM nursing techniques. A self-designed questionnaire was used to investigate student satisfaction with clinical teaching.

**Results:** Nursing students in the observation group achieved significantly higher scores in both specialty theoretical knowledge and TCM nursing operation skills compared to the control group ( $P < 0.05$ ). The satisfaction scores of students in the observation group were also significantly higher than those in the control group ( $P < 0.05$ ).

**Conclusion:** The case-based teaching model effectively enhances nursing students' learning motivation and clinical practice abilities, improves the quality of clinical teaching, and strengthens both theoretical knowledge and practical competencies, thereby contributing positively to specialized nursing quality and patient satisfaction.

**Keywords:** endocrine disease; clinical teaching; Traditional Chinese medicine nursing; case-based teaching

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## Introduction

With socioeconomic growth and improving living standards in China, dietary patterns have changed significantly, leading to a rising prevalence of diabetes

mellitus [1]. Diabetes belongs to the category of “Xiao Ke disease” (consumptive thirst) in TCM and represents a common chronic metabolic condition requiring lifelong management, often complicated by various comorbidities [2]. Our department has implemented various TCM characteristic treatments and nursing techniques for diabetes management, including acupoint injection, acupoint application, medicinal stick therapy, and intradermal needle therapy. Simultaneously, improving the quality of specialized diabetes nursing, enhancing TCM nurses’ operational competencies, and elevating clinical teaching standards for nursing students are essential for advancing TCM nursing practice and maximizing patient benefits [3].

Clinical internship constitutes a critical component of medical education, providing nursing students with essential opportunities to connect theoretical knowledge with clinical practice and develop practical skills [4]. TCM nursing is a required course for TCM college students, integrating modern nursing concepts to safeguard human health. This discipline emphasizes holistic nursing care and syndrome-based nursing interventions, requiring students to master theories of daily living care, emotional care, dietary nursing, medication administration, and TCM health preservation [5]. Through clinical internships, students integrate theory with practice to proficiently apply fundamental TCM nursing knowledge and characteristic techniques, enhance service consciousness, improve patient satisfaction, and promote the positive development of TCM nursing.

However, several challenges exist in current clinical teaching practices. Some nursing students demonstrate weak legal awareness during internships [6] and require improvement in professional competence and psychological coping abilities [7]. Due to insufficient training in nursing risk assessment and relevant legal knowledge during their academic studies, students often fail to recognize potential nursing risks in clinical settings, such as disclosing patient personal information, deviating from proper procedures, or lacking responsibility. Additionally, some students exhibit insufficient enthusiasm and initiative at work, experiencing tension and fear in the clinical environment. Incomplete mastery of theoretical knowledge prevents effective integration with clinical practice, creating a passive “difficult to teach, difficult to learn” situation. Furthermore, students from TCM universities often lack practical skills and cannot effectively apply TCM knowledge clinically, particularly regarding acupoint location and functions. Students also demonstrate inadequate communication skills with patients.

## 1. Materials and Methods

**1.1 Participants** Undergraduate nursing students from TCM universities who completed internships in our endocrinology department between June [year] and June [year] were selected as study participants. Based on different teaching methods, students were divided into a control group ( $n=[number]$ ) and an observation group ( $n=[number]$ ). All participating students were undergraduates

from TCM universities who voluntarily enrolled in the study. There were no statistically significant differences in general demographic data between the two groups ( $P>0.05$ ).

**1.2 Teaching Methods Control Group:** Students received conventional endocrinology nursing instruction, with the department's teaching supervisor leading students to familiarize themselves with the department and hospital environment using a "one-to-many" teaching format.

**Observation Group:** Students received case-based clinical teaching. Based on analysis of previous students' final assessment scores and satisfaction survey results, we identified learning deficiencies and weaknesses, adjusted teaching protocols accordingly, and developed new teaching plans that engaged students comprehensively in nursing practice.

**Teaching Plan Development:** In week 1, the chief instructor conducted orientation training, familiarizing students with the department environment, work discipline, regulations, job responsibilities, equipment placement, common disease types, and assessment requirements. In weeks 2-3, instructors focused primarily on teaching, establishing a familiar learning environment. In week 4, instructors observed students' workflow and order execution accuracy, adopting a "hands-off but eyes-on" approach while assessing fundamental TCM knowledge. In weeks 5-6, instructors reinforced mastery of nursing specialty knowledge and cultivated students' ability to perform TCM characteristic nursing operations and independently manage patient care through the primary responsibility system, enabling students to achieve self-actualization in their work before final examinations.

**Instructor Development:** We first enhanced instructors' proficiency in endocrinology specialty knowledge and operations, particularly regarding TCM treatment and nursing knowledge. Previous satisfaction surveys indicated that some instructors lacked sufficient understanding of TCM nursing-related knowledge, potentially affecting students' interest in learning these techniques. All department instructors hold bachelor's degrees or higher, with professional ranks of nurse practitioner or above, and have worked in the endocrinology department for over three years. We conducted competency assessments for each instructor, including theoretical and TCM operation evaluations, and shifted from traditional teaching models. Previously, teaching emphasized one-way knowledge transmission with passive student reception, employing relatively rigid and inflexible methods. Based on student characteristics, we implemented case-based clinical teaching, encouraging student participation in primary responsibility nursing [8], integrating real cases with one-on-one instructor guidance, and flexibly applying TCM characteristic nursing techniques. Finally, the teaching supervisor conducted weekly summaries and communicated with students to promptly address difficulties and questions encountered during clinical practice.

**1.3 Outcome Measures** At the end of the internship, the department organized unified assessments of specialty theoretical knowledge and TCM nursing skill operation capabilities. Additionally, a hospital-designed intern survey questionnaire was used to investigate student satisfaction, with higher scores indicating greater satisfaction with clinical teaching.

**1.4 Statistical Methods** SPSS software was used for data analysis. Measurement data were expressed as mean  $\pm$  standard deviation ( $\bar{x}\pm s$ ) and compared between groups using t-tests. The significance level was set at  $\alpha=0.05$ , with  $P<0.05$  considered statistically significant.

## Results

**Specialty Theoretical Knowledge and TCM Nursing Operation Skills Evaluation** Nursing students in the observation group achieved significantly higher scores in both specialty theoretical knowledge and TCM nursing operation skills compared to the control group ( $P<0.05$ ).

**Satisfaction Evaluation** The satisfaction score of nursing students in the observation group was (score) points, significantly higher than the (score) points in the control group ( $P<0.05$ ).

## Discussion

Our hospital's endocrinology department implements diabetes specialty treatment and nursing based on the TCM concept of "preventing disease before onset, preventing progression after disease onset, and preventing recurrence after recovery." Building upon conventional Western medicine treatment and nursing, we integrate TCM characteristic nursing techniques to improve clinical symptoms and enhance patients' quality of life. To improve specialized nursing teaching quality and cultivate specialized nursing talents, our department emphasizes strengthening students' innovative thinking and self-learning abilities, focusing on cultivating TCM nursing knowledge through case-based teaching models that ensure students can connect theory with practice and flexibly apply TCM characteristic nursing techniques to provide quality patient care.

The results demonstrate that nursing students in the observation group achieved significantly higher scores in specialty theoretical knowledge, TCM nursing operation skills, and teaching satisfaction compared to the control group ( $P<0.05$ ), indicating that the case-based teaching model effectively improves clinical teaching quality, enhances students' learning interest and initiative, and strengthens both theoretical knowledge and clinical practice abilities, thereby positively contributing to improved specialized nursing quality and patient satisfaction.

Healthcare services in the 20th century focused on disease treatment and health restoration, while the 21st century has elevated this goal to disease prevention and quality of life improvement [9]. The TCM concept of "preventing disease

before onset” represents a new health philosophy of “shifting from treatment to wellness.” With the integration of Chinese and Western medical cultures, a new diabetes health rehabilitation model based on TCM health preservation methods is gradually being applied to diabetic patients’ daily lives [10]. Combined with appropriate daily dietary control and management for diabetic patients, this approach can effectively improve clinical treatment outcomes and better ensure patient safety and quality of life.

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