

# Application and Practice of Bloom's Method in Teaching Gynecological Nursing Internships

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## Abstract

To explore the effect of practical application of Bloom's teaching method in gynecology nursing internship teaching, 86 nursing interns in the Gynecology Department of Deyang People's Hospital in mainland China from June 2024 to May 2025 were selected as the study subjects, and were divided into a control group (n=43) and an observation group (n=43) according to the order of their admission to the department, and the control group implemented traditional gynecological nursing teaching methods, while the observation group implemented Bloom's teaching method. By comparing the application effects of the two nursing teaching method, it is found that the comprehensive teaching scores of the observation group were significantly higher than those of the control group ( $P<0.05$ ), the scores of the Chinese version of the California Critical Thinking Inventory (CTDI-CV) were significantly higher than those of the control group ( $P<0.05$ ), and the scores of the Chinese version of the Emotional and Regulatory Beliefs Scale (ERBS) of the observation group were significantly higher than those of the control group ( $P<0.05$ ). After this study, it can be drawn that nursing teaching based on Bloom's teaching method could effectively improve the comprehensive teaching scores of nursing students in gynecology internships, effectively improve the clinical critical thinking of interns, cultivate and strengthen the interns' beliefs in emotional regulation, and also enhance their humanistic qualities, which is worthy of deeper practice, application and research in clinical nursing teaching.

**Keywords:** bloom's teaching, gynecological nursing, nursing internship, critical thinking

## 1. Introduction

Gynecological nursing is a nursing discipline that deals with diseases of the female reproductive system, such as the vulva, vagina, uterus, fallopian tubes, ovaries, etc. (Nishio et

al., 2024). Unlike medical and surgical nursing practice teaching, gynecological diseases are complicated and involve women's privacy and sensitive topics, which inevitably cause patients' sense of shame in the process of treatment and care. Gynecological specialties require specialized care, which necessitates higher professionalism from nursing staff. Additionally, they must possess privacy protection and effective communication skills, presenting a greater challenge to clinical nursing education (Wen et al., 2024). This further poses a greater challenge to clinical nursing teaching (Wen et al., 2024).

According to the requirements of the Ministry of Education of China for the nursing internship syllabus, nursing students must master the theoretical knowledge of gynecological diseases, gynecological examination, and gynecological nursing operations, as well as other fundamental skills in gynecology clinical internship teaching (Sharma et al., 2023). However, traditional gynecology clinical practice teaching mainly relies on clinical nursing faculty to actively teach relevant professional knowledge, and students more often than not passively accept monotonous professional knowledge from clinical faculty, resulting in the inability of clinical nursing students to actively participate in gynecological nursing practice, and the inability to flexibly apply the theoretical knowledge of gynecological nursing in clinical practice, which results in the lack of clinical problem-solving ability and critical thinking ability of the students. As a result, students lack clinical problem-solving skills and critical thinking ability to cope with the challenges of clinical work, which leads to the majority of nursing interns being dissatisfied with the traditional teaching methods (Y. Zhang et al., 2024).

5. Bloom's Objective Teaching Method was proposed by American instructional psychologist Benjamin Bloom in 1956, the core of which is to enhance teaching and learning through systematic classification of teaching goals and individualized teaching strategies (Adams, 2015). Bloom categorized instructional objectives into three domains: cognitive, affective, and motor skills, each of which is further divided into levels ranging from low to high, emphasizing the gradualness and completeness of learning (Zaidi et al., 2017). In the cognitive domain of Bloom's objective-based pedagogy, it is divided into six levels of memorization, comprehension, application, analysis, synthesis and evaluation, after which it was revised by Lorin Anderson and David Krathwohl in 2001, and divided into memorization, comprehension, application, analysis, evaluation and creativity (Orgill & Nolin, 2025), the affective domain focuses on the internalization of attitudes and values and is divided into the levels of acceptance, response and valuation, while the motor skills domain emphasizes physical movement and manipulative skills (Ogbeide et al., 2025). Currently, Bloom's teaching method is widely used in clinical nursing teaching activities, so that the nursing students' learning initiative is improved, and the nursing students' basic theories of nursing knowledge and critical thinking ability are also enhanced (Labrague, 2024). As a highly reputable teaching method in the educational nursing domain, this study applies Bloom's teaching method to the teaching of gynecological nursing interns.

## **2. General Information**

This study is a prospective study; all the intern nursing students are from higher education institutions in mainland China, and the nursing teachers involved in teaching are nursing staff who are assessed and qualified for clinical teaching in Deyang People's Hospital. 86 nursing students who were interns in the Gynecology Department of Deyang People's Hospital from June 2024 to May 2025 were selected as the study subjects, and they were divided into the control group (n=43) and the observation group (n=43) according to the order before and after their admission to the department. Inclusion criteria: (1) those who participated in clinical internship for the first time; (2) those who voluntarily participated in all the courses of this study; (3) those whose initial education level was full-time junior college or above, and exclusion criteria: (1) those who had mental-behavioral disorders; (2) those who had >10% of missing participation in the courses as a result. Both groups of internship nursing students were female, the age of internship nursing students in the control group was 19-23 years old, the average age ( $20.33 \pm 3.09$ ) years old, the educational level: 36 cases of junior college, 7 cases of senior college with an undergraduate degree; the age of internship nursing students in the observation group was 20-22 years old, the average age ( $20.68 \pm 2.72$ ) years old, the educational level: 33 cases of junior college, 10 cases of senior college with an undergraduate degree, and there was no significant difference in the comparison of the general information of internship nursing students in the two groups ( $P > 0.05$ ), thus they are comparable.

## **3. Methodology**

### *3.1 Control Group*

The control group implemented the traditional gynecological nursing teaching methods, as follows:

3.1.1 Familiarization with the environment and departmental introduction: after the interns enter the department, the instructor is responsible for introducing the departmental layout, such as wards, examination rooms, treatment rooms, etc., and informing the interns about the importance of privacy protection and hospital-acquired immunity.

3.1.2 Gynecology-related theory and ethics training: The teacher in charge of the department is responsible for the training of gynecology theory knowledge to the nursing students, focusing on explaining common gynecological diseases and nursing knowledge, and teaching the interns the relevant ethical norms and legal risks in the process of gynecology internship.

3.1.3 Clinical practice skills teaching: The internship instructor will lead the internship nursing students to implement the hierarchical progressive clinical internship. When the interns first enter the department, they will observe the nursing operation under the guidance of the instructor, learn the basic operation preparation, and perform a gynecological specialty assessment. After the interns are familiar with the relevant operations, they will carry out the relevant specialty operations such as gynecological examination, vaginal irrigation, perineal scrubbing, urinary catheterization, and a variety of standard collection under the supervision and guidance of the instructor, and it is advisable to start from the simple operation with high

degree of cooperation to gradually transition to the complex operation, and then gradually transition to the complex operation. After that, the teacher will assess the overall level of the interns, and they will independently complete the relevant nursing operations and specialized operations under his/her supervision.

3.1.4 Cultivation of humanistic care: During the internship, the instructor needs to strengthen the privacy protection of internship nursing students, guide the empathy training of internship nursing students, emphasize the protection of privacy, and learn to express empathy and support to patients.

3.1.5 Teaching safety and ethical protection: During the internship period, the internship nursing students need to strictly implement the nursing-related system, respect the patients' wishes, strengthen the right of informed consent, and fully protect the rights and interests of patients and internship nursing students.

### *3.2 Observation Group*

The observation group implements Bloom's teaching methods, which are as follows:

#### *3.2.1 Cognitive Domain*

3.2.1.1 Determination of teaching objectives: The main purpose of this stage is to cultivate students' thinking ability and problem-solving ability, so it needs to strengthen students' learning of gynecological theoretical knowledge in this stage.

3.2.1.2 Memory and understanding: in this stage, videos on gynecology-related diseases can be released through WeChat online platforms, and interns are asked to review them in advance when they enter the department, and thereafter the instructor guides the students to strengthen their memory by drawing mind maps, at last the students' mastery of gynecology theoretical knowledge can be understood by setting up a game to break through the barrier and urging them to strengthen their knowledge of the unfamiliar theoretical parts accordingly.

3.2.1.3 Application and analysis: In this stage, the instructor guides the interns to analyze the common and typical cases of gynecology by organizing teaching ward round, and requires the interns to independently assess, plan and formulate nursing care measures for such diseases, and the instructor comments and improves the strategies formulated by the interns, to cultivate the interns' clinical decision-making and critical thinking abilities.

3.2.1.4 Evaluation and Creation: In this stage, the instructor will guide the interns to review the current common gynecological care measures and processes, put forward improvement and optimization measures, and create a personalized gynecological care plan, which can be reflected in case reports or reflective journals.

3.2.2 Emotional domain: The teaching goal of this stage is to cultivate the professional emotion and communication ability of intern nursing students. Guide the internship nursing students to actively participate in the patient's health education in order to cultivate their sense of responsibility. Regularly carry out the internship group symposium, encourage the internship nursing students to actively share their internship experience, and enhance their

sense of professional belonging and identity. At the same time, the leading teacher can also share their professional experience, cultivate the internship nursing students' empathy, and strengthen the humanistic caring behaviors of the internship nursing students.

3.2.3 Motor skill field: the teaching goal of this stage is to cultivate the clinical operation ability of intern nursing students and make them skillful in clinical operation. The teaching method of this stage can adopt the way of teacher demonstration and scenario simulation training to create a real-life environment for the intern nursing students to practice, so that the intern nursing students can gradually master the relevant nursing operation mode through the teaching model, and then the intern nursing students can finish the operation independently under the supervision of the instructor. In the meantime, the instructor needs to correct the relevant errors in detail in real time during the operation process, and then finally apply it in the real clinical practice environment. Furthermore, the instructor will be able to help the intern nursing students to improve their clinical operation skills in clinical practice, during which the instructor may carry out activities and practices through the way of group work, so as to cultivate the students' teamwork ability. It is worth noting that the clinical practice needs to obtain the consent of patients or their families, and we should encourage the intern nursing students to actively communicate with patients, pay attention to the protection of patient privacy, and cultivate their sense of responsibility and empathy.

#### **4. Evaluation Criteria**

##### *4.1 Comprehensive Teaching Score*

The comprehensive teaching score consists of theoretical examination (40%), operational skills assessment (40%), and patient satisfaction (20%). The theoretical examination mainly contains the pathology of common gynecological diseases, clinical and nursing knowledge, the total score is 100 points, which multiplies by 40% is the theoretical part of the score; the operational skills assessment of the examination covers the content of the vaginal lavage, perineal lavage and catheterization, each operation scores 100 points in total, the average score of the three operations multiplies by 40% is the operational skills part of the score; the patient satisfaction uses the department's self-designed form, scoring 100 points in total, and the score multiplies by 20% is the patient satisfaction part of the score. The higher the score, the better the effect of the clinical internship indicates.

##### *4.2 Critical Thinking Ability*

The Chinese version of the California Critical Thinking Ability Scale (CCTAS) was used to evaluate the post-intervention critical thinking of the two groups of nursing interns, with the Cronbach's alpha coefficient of the scale reaching 0.90, the overall content validity index (CVI) of 0.85, and the overall alpha of 0.71, which was based on a 6-point Likert scale (1 = "Strongly Disagree", 6 = "Strongly Agree"), with a total score range from 70 to 420, and a total score of  $\geq 280$  indicating positive critical thinking tendencies in practicing nursing students (Yeh, 2002).

### 4.3 Emotion Regulation Ability

The Chinese version of the Emotion and Regulation Belief Scale (ERBS) was used to evaluate the emotion regulation ability of the two groups of nursing interns after the intervention. The scale had a Cronbach's alpha coefficient of 0.798 and a content validity index of 0.920, and included three dimensions of the belief in the emotion expression, the belief in the importance of emotion management, and the belief in the efficacy of emotion regulation, with a total of 16 items. The scale was evaluated by using a Likert 5-point scale, with total scores ranging from 16 to 80, with higher scores indicating stronger positive emotion regulation beliefs, better expressive clinical skills, more emphasis on self-emotional management, and higher self-confidence in nursing interns (D. Zhang et al., 2022).

## 5. Statistical Methods

All data were statistically analyzed by applying SPSS 26.0, and statistical significance was indicated when  $P < 0.05$ . For general information, frequency and percentage were used for statistical description. Count data were statistically analyzed using the Chi-square test, and the data of teaching evaluation, critical thinking ability scale, and emotion and regulation beliefs scale of nursing interns were statistically described and analyzed using the Independent-sample t-test and Repeated-measures analysis of variance (ANOVA).

## 6. Results

6.1 Evaluation of the teaching situation of the two groups of internship nurses at the end of the internship in the senior college graduates department, theoretical examination score, operational skills score, patient satisfaction score and comprehensive teaching score of the internship nurses in the observation group were all significantly higher than those of internship nurses in the control group ( $P < 0.05$ ), see Table 1.

Table 1. Comparison of the Evaluation of Teaching Effect of the Internship Nurses in the Two Groups ( $\bar{x} \pm s$ , points)

Group	Number of cases	Theoretical examination score	Operational skills score	Patient satisfaction score	Comprehensive teaching score
Control group	43	$32.87 \pm 1.56$	$30.73 \pm 1.32$	$17.55 \pm 0.61$	$81.15 \pm 3.49$
Observation group	43	$36.08 \pm 1.95$	$35.65 \pm 1.62$	$18.34 \pm 0.32$	$90.07 \pm 3.81$
t		8.429	15.439	7.520	11.321
P		0.000	0.000	0.000	0.000

6.2 Critical thinking ability evaluation was conducted for the two groups of internship nursing students at the end of the senior college graduates department, and the scores of the Chinese version of the California Critical Thinking Disposition Inventory (CTDI-CV) of the



internship nursing students in the observation group were significantly higher than those of the internship nursing students in the control group ( $P < 0.05$ ), see Table 2.

Table 2. Comparison of CTDI-CV Scores Between the Two Groups of Internship Nursing Students ( $\bar{x} \pm s$ , points)

Group	Number of cases	(CTDI-CV) Scores
Control group	43	$258.81 \pm 20.62$
Observation group	43	$289.65 \pm 15.23$
t		7.889
P		0.000

6.3 Evaluation of the two groups of internship nursing students' ability to regulate their emotions at the end of the senior college graduates department, the Chinese version of the Emotion and Regulation Beliefs Scale (ERBS) scores of the internship nursing students in the observation group were significantly higher than those of the internship nursing students in the control group ( $P < 0.05$ ), as is shown in Table 3.

Table 3. Comparison of ERBS Scores Between the Two Groups of Internship Nursing Students ( $\bar{x} \pm s$ , points)

Group	Number of cases	ERBS Scores
Control group	43	$64.41 \pm 6.62$
Observation group	43	$71.65 \pm 5.59$
t		5.479
P		0.000

## 7. Discussion

Clinical nursing education reform is the current response to the challenges of the health care environment and to enhance the level of nursing expertise is inevitable, therefore, in the implementation of clinical nursing education reform process, it needs to be carried out continuously to innovate the education model, break the emphasis on technology rather than humanities, theory rather than the practice of the old mode, to achieve the integration of education supply and clinical needs. The traditional gynecological clinical nursing education is limited by the strong operation of specialties and the high protection of patients' privacy, and intern nursing students often become passive observers and learners, resulting in the lack of motivation and internship opportunities for intern nursing students, which reduces their chances of participating in clinical practice, and thus they are inclined to be unable to organically combine gynecological theoretical knowledge with clinical practice, and further impeding their improvement of clinical thinking and clinical practice abilities (Rahimi et al., 2021). The determination of teaching objectives is the starting and key point for setting up the form and content of teaching, which can help practicing nurses and clinical instructors to determine the teaching effect that should be achieved, so the Bloom's objective teaching method will be paid more attention to and applied by nursing education scholars (Jia & Balinas, 2024).

In Bloom's objective teaching method, it follows the cognitive ladder from low-order to high-order, which is in line with the gradualness of human cognitive development. Teachers can set hierarchical goals according to the level of the students and the characteristics of gynecological nursing teaching, so that the intern nursing students can understand the theoretical knowledge related to gynecological nursing and apply it to the clinical practice in-depth step by step, and give personalized solutions to deepening the mastery of theoretical knowledge related to gynecological nursing in the clinical practice (Larsen et al., 2024). The teaching of the affective domain develops the interns' understanding of the theoretical knowledge related to gynecological nursing and its application in clinical practice. The teaching of the emotional domain can cultivate the intern nursing students' empathy in the process of internship and promote the improvement of their humanistic qualities, so that they can skillfully communicate with patients in real-life clinical scenarios, respect patients' privacy, and maintain patients' self-esteem. The domain of motor skills enables the intern nursing students to have a deeper understanding of gynecological operations, practice them, and masterfully apply the specialized nursing operations, so that their self-practice skills can be enhanced accordingly (Şentürk Erenel et al., 2021; Wei & Peng, 2025). As a consequence, the theoretical scores, operational skills, and patient satisfaction of the observation group were better than those of the control group, as explained above.

Critical thinking ability is a higher-order cognitive ability, which refers to the thinking process that enables nursing staff to analyze, evaluate, and integrate clinical information about a patient in a proactive, systematic, and rational manner, and to make reasonable judgments and decisions accordingly (Ganji et al., 2022). Critical thinking skills can help clinical nurses creatively identify problems and make correct clinical decisions, and are therefore recognized as one of the essential core competencies for nursing interns (Horntvedt et al., 2018; Wang et al., 2024). However, it is often easy to neglect the cultivation of critical thinking in nursing interns during the teaching process of clinical internships, and thus, nursing education reforms in recent years have been centered on enhancing the comprehensive competencies and critical thinking abilities of nursing interns in clinical internships. In this study, through the implementation of Bloom's objective teaching method, critical thinking ability of the interns in the observation group was highly improved, mainly because Bloom's teaching mode advocates starting from the cognitive level of the interns, from the low-level understanding (mastering the theoretical knowledge of gynecology) to the high-level of understanding (formulating personalized care plans), and then realize the cultivation of the interns' critical thinking. The application of scenario exercise teaching can simulate the real scene to prompt the internship nursing students to flexibly formulate the intervention plan to implement nursing care for the patients, and then improve their comprehensive quality of themselves, so the observation group internship nursing students' critical thinking ability scores were significantly higher than those of the control group.

Emotional regulation beliefs refer to an individual's beliefs and confidence in their ability to self-manage and regulate their emotions. During gynecology internships, as nursing students need to directly face patients' pain and come into contact with patients' highly sensitive and private issues, coupled with the overloaded nature of clinical internships, this can easily lead



to interns' falling into a state of emotional depletion and self-doubt. Therefore, having strong beliefs and emotional regulation in the clinical setting is essential for nurse practitioners (Belay & Kassie, 2021). However, traditional clinical nursing internship teaching often tends to ignore the guidance of interns' emotions and beliefs, based on Bloom's objective teaching method, which emphasizes the guidance of interns' emotional domain, through teacher's sharing of former working experiences, form group symposiums to share their internship experience and cultivate interns' ability to empathize with patients and sympathize with them, and at the same time to help interns to strengthen their own beliefs, be brave and dare to challenge themselves, improve their sense of professional pride and elevate the quality of their future career. At the same time, it also helped the interns to strengthen their self-belief, be brave to challenge themselves, and improve their sense of professional honor and sense of professional identity. Therefore, the scores of the Chinese version of the Emotional and Regulation Beliefs Scale of the observation group were significantly higher than those of the control group.

## **8. Summary and Limitations**

Nursing teaching based on Bloom's objective teaching method can not only effectively improve the comprehensive teaching scores of nursing students practicing in gynecology, but also efficiently enhance the clinical critical thinking ability of practicing nursing students, cultivate and strengthen the emotion regulation beliefs of practicing nursing students, and enhance their humanistic qualities, which is worthy of being applied in clinical nursing teaching process. However, this study was conducted in a city-level tertiary general hospital in mainland China, and the sample size of the selected research subjects was small and not universal, plus the nursing interns included in the study were all female due to uncontrollable factors, so it was not possible to evaluate the results and effects of the application of male students in the teaching of gynecological nursing in this mode. In the future, we should further increase the sample size of the teaching and the percentage of male students in the teaching of gynecological nursing, to observe from a more objective standpoint and draw a more comprehensive conclusion, to make a contribution to the research.

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The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

**Data sharing statement**

No additional data are available.

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