

A Study on the Application of Clinical Pathway Teaching Method in Teaching Gastroenterology Nursing Interns

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Abstract: *Objective:* To investigate the application effect of the clinical pathway teaching method in the teaching of gastroenterology nursing interns. *Methods:* 36 interns from the Department of Gastroenterology of our hospital from July 2022 to April 2023 were selected as the study subjects and divided into the control group and the study group (n = 18 each) by randomized grouping method. The control group was given conventional teaching methods and the study group adopted clinical pathway teaching methods. The effect of internship in the two groups was compared. *Results:* Under the influence of the clinical pathway teaching method, the theoretical knowledge achievement and practical skills of interns in the study group were higher than those in the control group, and the difference was statistically significant ($P < 0.05$). *Conclusion:* Compared with the conventional teaching mode, the use of the clinical pathway teaching method in the teaching of nursing interns in gastroenterology can not only realize the optimization and innovation of traditional teaching means, but also mobilize the interns' enthusiasm, improve their learning interest, and promote the comprehensive improvement of theoretical knowledge and practical skills.

Keywords: Clinical pathway teaching method; Gastroenterology; Nursing interns; Teaching

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1. Introduction

Nursing work has strong practicality and applicability. Therefore, in nursing internship teaching, one must not only be proficient in nursing theoretical knowledge but also have a high level of practical skills and flexibly apply the knowledge learned. However, in the specific teaching, it was found that the traditional nursing teaching method mainly takes the teacher as the leader, while the students are in the position of passive acceptance of knowledge; the students lack learning initiative and enthusiasm as well as lack interest in the knowledge learned, resulting in a low level of professional theoretical knowledge and operational skills ^[1]. A clinical pathway is a diagnostic and therapeutic plan with a strict sequence and accurate time requirements developed for the monitoring, treatment, rehabilitation, and care of a certain disease, and is a set of standardized treatment modes and procedures ^[2,3]. The clinical pathway teaching method is a teaching method that introduces

the concept of clinical pathways into the clinical teaching process ^[4]. Our department applies the clinical pathway teaching method to the nursing interns' teaching, and the application effect is reported as follows.

2. Basic information and methods

2.1. Basic information

36 interns who practiced in the Department of Gastroenterology of our hospital from July 2022 to April 2023 were selected as the study subjects. A randomized grouping method was used to divide them into the control group and the study group ($n = 18$ each). Among the interns in the control group, there were 4 males and 14 females, with a mean age of 22.13 ± 1.71 years, and all of them had a bachelor's degree. In the study group, there were 5 male and 13 female interns, with a mean age of 22.28 ± 1.51 years and an educational level of Bachelor's degree. Comparing the gender, age, and education of the interns in the two groups, the differences were not statistically significant ($P > 0.05$) and were comparable.

2.2. Methods

The interns in the control group implemented the conventional teaching method, which mainly included self-introduction, department visits, teaching design, knowledge assessment, and so on.

The interns in the study group implemented the clinical pathway teaching method:

- (1) Developing a clinical pathway teaching schedule: With the knowledge of gastroenterology diseases and clinical practice experience, the head nurse of the department and the head of the teaching team developed a clinical pathway teaching table, according to the principle of gradual progress, weekly for the time period, the content of the theoretical knowledge learning, specialized practical operation, on-site teaching, nursing room visits, teaching reports, discharge assessment, etc., throughout the internship period. The instructor recorded the implementation of the clinical pathway in the clinical pathway teaching table, and the internship lasted for six weeks, with 1 random check every week.
- (2) Clinical teaching content: (a) After nursing interns were admitted to the department, senior nurses with teaching qualifications were responsible for teaching, and each intern was issued a teaching path form that needed to be learned in the department, on which the learning contents of the six weeks of internship were evenly distributed. There were clear theoretical, operative, and practical contents that needed to be learned every week, and the assessment was carried out separately. (b) Teaching teachers were familiar with the teaching pathway table in the department, and in the process of teaching, the teaching teachers implemented the teaching program strictly according to the clinical pathway table, which was conducive to ensuring the standardization and institutionalization of the teaching process, and thus could further improve the quality of teaching. (c) Nursing interns knew what they needed to learn and master in the department immediately after joining the department, so they had clear goals, and nursing interns could change their roles as soon as possible, shortening the clinical adaptation period ^[5,6]. (d) During the six-week internship, the lead teacher guided the interns to understand the basic process of caring for patients, admission education, examination and treatment, diet and medication, condition observation, and discharge guidance, and to familiarize them with the knowledge of gastroenterology specialty diseases and nursing care, and the methods and precautions of specialty examinations, such as gastroscopy and enteroscopy. In addition, the instructors also taught interns nursing operation skills, selecting typical clinical cases for explanation, including indwelling gastric tube, nasal feeding care, enema, and other nursing operations, so as to enhance their cognition through practical activities and promote the improvement of practical skills. At the end of each week's

internship, the teaching teachers reviewed the learning content of the previous week, let the interns review the nursing measures for patients with common diseases in gastroenterology, assessed their mastery of nursing knowledge, and evaluated the assessment results. (d) In the week before the end of the internship, in addition to the weekly timed and anytime teaching and assessment by the teaching teachers, the theoretical assessment and operational skills assessment, as well as the PowerPoint report of specialty knowledge, were uniformly conducted before discharge from the department, which served as a test of students' achievements and gains during the internship.

2.3. Observation indicators

Skill practice and nursing knowledge scores of interns in the two groups were assessed (with a score of 100 points).

2.4. Statistical methods

SPSS23.0 statistical software was used to analyze the data generated in the course of the study, and the test between groups was expressed by t and χ^2 , with $P < 0.05$ indicating that the difference was statistically significant.

3. Results

The details of the results of the skills practice and nursing knowledge assessment in the clinical teaching of gastroenterology in the two groups of interns are shown in **Table 1**.

Table 1. Nursing knowledge and practical operation assessment of interns in two groups (mean \pm standard deviation, $n = 18$)

Group	Nursing knowledge	Hands-on skills	Equipment preparation	Interpersonal communication	Grooming
Study group	96.21 \pm 1.56	95.48 \pm 2.03	97.11 \pm 0.68	94.26 \pm 2.71	95.82 \pm 1.65
Control group	84.37 \pm 2.48	80.26 \pm 3.77	81.65 \pm 4.29	79.32 \pm 3.08	90.32 \pm 1.77
t	13.756	10.362	11.657	8.636	5.467
P	< 0.05	< 0.05	< 0.05	0.05	< 0.05

4. Discussion

The clinical pathway teaching method is a new nursing teaching mode born based on the traditional teaching concept, which refers to letting interns get in touch with clinical practice as early as possible in teaching and testing their knowledge level, it can also promote the improvement of nursing skills, laying a foundation for the formal work in the future. Compared with the traditional teaching mode, the clinical pathway teaching method not only focuses on the explanation of theoretical knowledge but also emphasizes the interns' mastery of nursing skills during the internship, so that their comprehensive skills can be effectively improved. In order to reflect the value of the clinical pathway teaching method, this paper took 36 interns as the research subject and explored the application value of the clinical pathway teaching method in the gastroenterology department. The results of the study show that under the influence of the clinical pathway teaching method, the theoretical knowledge scores and practical skills of the interns in the study group were higher than those in the control group, and the difference was statistically significant ($P < 0.05$).

5. Conclusion

In summary, the clinical pathway teaching method has high value when applied to the teaching of nursing interns in gastroenterology, and should be vigorously promoted and widely applied in future teaching.

Disclosure statement

The authors declare no conflict of interest.

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