



Research Article

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Application of the Teaching Method of PAD Teaching Method Combined with Mind Map in Surgical Nursing

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Abstract

Objective: To explore the application effect of PAD teaching method combined with mind map teaching in surgical nursing teaching, and to provide a new auxiliary teaching method for surgical nursing theory and practice teaching.

Methods: 48 students of nursing class 1 of grade 2019 were selected as the control group, and 51 students of nursing class 2 of grade 2019 were selected as the research group; the traditional teaching method was used in the control group, and the divided classroom teaching method combined with mind map teaching method was used in the research group.

Results: The scores of surgical nursing teaching theory examination and case analysis in the study group were significantly higher than those in the control group ($P < 0.05$); the satisfaction of the study group in improving students' learning interest, self-learning ability and analysis ability was higher than that in the control group.

Conclusion: The teaching mode of PAD teaching method combined with mind map is helpful to improve students' academic performance and to cultivate and establish students' clinical thinking.

Keywords

PAD teaching method, Mind map, Surgical nursing, Teaching application

Introduction

Surgical nursing is an important bridge between nursing theory and clinical practice. It is the core professional course of nursing. The teaching difficulty of this course lies in the in-depth explanation of common clinical diseases and the cultivation of students' clinical thinking and the ability to find and solve problems. However, due to the interdisciplinary characteristics of the course itself, there is a practical problem of knowledge duplication. In the process of learning, students have loose learning attitude and low learning enthusiasm. PAD teaching method is known as the new teaching method of university with Chinese characteristics, namely presentation, assimilation and discussion [1], which has been highly praised in the teaching reform of colleges and universities [2]. Its core idea is to assign half of the classroom time to teachers for teaching, and the other half to students for interactive learning in the form of discussion [3]. Teachers mainly teach the backbone, key points and difficulties of the knowledge system, and assign relevant assignments. However, there are some defects in the understanding of students' memory details and the composition of knowledge framework in the PAD class. Mind map can turn dull and scattered information into organized and easy to remember pictures, making informa-

tion more logical. It has been widely used in biochemistry, neurology and traditional Chinese medicine teaching [4-6]. Therefore, this study adopts the teaching method of divided classroom combined with mind map, and evaluates the application effect of divided classroom combined with mind map through the assessment of surgical nursing theoretical knowledge, case analysis and investigation.

Materials and Methods

General information

99 nursing students of grade 2019 in our hospital were selected as the research objects. Among them, 48 students

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of nursing class 1 of grade 2019 were in the control group, including 2 boys and 46 girls, aged (19.5 ± 0.9) years; 51 students of nursing class 2 of grade 2019 were in the study group, including 4 boys and 47 girls, aged (19.8 ± 0.7) years. There was no significant difference in gender and age between the two groups.

Methods

The same teaching group was responsible for the teaching of surgical nursing in both groups. The unified teaching materials were used, and the teaching environment, content and class hours were the same. 90 class hours of theoretical teaching, 4 units. According to the total number of unit hours, the second and third units are designed for three times, and the fourth unit is designed for two times, a total of eight times. Other content according to the needs of the course, flexible use of in class bisection. The control group adopted the traditional teaching method; the research group designed the last class in two weeks, combined with mind map, taught the production method of mind map in the first section of the last class in two weeks, displayed the excellent mind map, optimized the production of mind map, and taught the knowledge framework, key and difficult points and assignment in the second section. The design of the second and third PAD teaching method is the same as above.

Discussion group and assignment: 4-5 people in a group, grouping principle according to the academic performance excellent 1 person, medium 2 people, poor 1 person grouping.

After class assignment and scoring criteria: (conclusion) 10 points pass, unlimited number of words, focus on reading the textbook, internalization absorption, production of this chapter mind map. 15 points, serious. Design 1-3 questions. You can control it yourself, but others may not. (bright) 20 excellent.

Choose one of them: A) Discuss one's own learning experience; B) Analyze a case; C) Sort out the papers related to the knowledge points related to the current learning points, indicate the source, and write the experience in unlimited words;

D) Create a work to reflect one's current learning achievements, such as comics, posters, handicrafts.

Group discussion will be carried out in the next class: Review the key and difficult content with mind map; group learning for their own gains, puzzles, difficulties and mutual exchanges, 15 min; class communication for 10 minutes; teacher summary for 10 minutes.

Evaluation criteria

Final written examination results assessment. The written examination is carried out at the end of the semester. In order to produce a unified paper and answer questions in closed form, it is divided into theoretical examination, case examination and operation examination, all of which are 100 points. Satisfaction survey, questionnaire survey to understand the students' satisfaction with teaching.

Statistical methods

SPSS20.0 software was used for statistical processing, the counting data was expressed by percentage, and chi square test was used for comparison between groups; the measurement data was expressed by mean ± standard deviation, and t test was used for comparison between groups, P < 0.05 was considered as statistically significant.

Result

The scores of theoretical examination and case analysis of the study group were significantly higher than those of the control group (P < 0.05), as shown in Table 1. There were 51 questionnaires about teaching effect satisfaction, and 51 were collected. The results of questionnaire feedback show that the research group is satisfied with the sub class teaching method combined with mind map teaching method in improving students' learning interest, self-learning ability and analysis ability, see Table 2.

Discussion

The core goal of surgical nursing course is clearly put forward that students can master the nursing knowledge and

Table 1: Comparison scores of the two groups.

Group	Theoretical assessment	Case assessment	Operation assessment
Research Group	92.25 ± 4.21 ^a	89.97 ± 6.75 ^a	91.75 ± 5.27 ^a
Control Group	87.75 ± 5.19	84.16 ± 3.98	86.97 ± 4.58

Compared with the control group, ^ap < 0.05

Table 2: Feedback results of questionnaire in research group.

Project	Very satisfied	Basically satisfied	Dissatisfied
Improve self study ability	37 (72.5)	14 (27.4)	0
Expression and thinking ability	40 (78.4)	11 (21.5)	0
Ability to analyze and solve problems	42 (82.3)	8 (15.6)	1 (1.9)
Expand knowledge, vision and ability	45 (88.2)	6 (11.7)	0
Vivid and impressive	43 (84.3)	7 (13.7)	1 (1.9)
Team communication and cooperation	41 (80.3)	7 (13.7)	2 (3.9)

skills of common clinical diseases, and enhance the thinking ability of holistic nursing and clinical nursing. The main body of the knowledge system is emphasized in the teaching content of the sub class, and the key points and difficulties are explained in detail. Therefore, students often focus on the teaching knowledge and ignore the memory details, which leads to the problem that the basic knowledge is not solid. Using mind map to sort out and summarize the knowledge details can solve this problem. Surgical nursing integrates many courses, such as anatomy, physiology, pathology and so on. It is especially necessary to pay attention to the establishment of students' knowledge structure summary and inductive ability. Teaching students to use mind map can not only help students to establish knowledge system, but also a good method of formative evaluation, which can let teachers understand the degree of students' mastery of knowledge and the specific problems to answer questions.

In recent years, mind mapping has been widely used in nursing education. Boley brings clinical care [7,8]. Each stage of the nursing process in the scene was made into mind map, which was applied to the nursing simulation teaching. The two groups of students were tested every week. In each test, the performance of mind map group continued to be better than that of the control group. Kern, et al. [9] also believe that mind map of nursing plan is a holistic nursing teaching method with patient as the center, which can expand the thinking mode of nursing students; in addition, Spencer, et al. have also achieved good results in applying mind map to problem-based learning (PBL). The research team introduced mind mapping method to 182 three-year nursing students in our hospital in 2014. The total score of critical thinking ability scale increased from (279.73 ± 19.57) to (357.68 ± 23.84) , the scores of seven dimensions were significantly increased, and the differences were statistically significant ($P < 0.05$); the students were very satisfied with the teaching effect of mind map, and their satisfaction was as high as 97%. It is proved that the application of mind map in surgical nursing teaching can stimulate students' interest in learning, improve their critical thinking ability and enhance the teaching effect [9-11].

In this study, PAD teaching method combined with mind map teaching method is used in surgical nursing teaching. Combined with the advantages of the two methods, the combination of the two methods has achieved good application effect in surgical nursing teaching of higher vocational nursing specialty. Students' academic performance has been significantly improved, and good satisfaction has been obtained.

To sum up, the combination of mind map and bisection class not only strengthens the cultivation of divergent thinking and logical thinking, but also improves the knowledge ac-

quisition. In order to stimulate students' learning enthusiasm and achieve the ultimate goal of efficient learning. The combined application of the two teaching methods is suitable for the characteristics of the course itself, and is conducive to the successful completion of the core objectives of the course. It has certain advantages of combination, and is worthy of further promotion.

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