

Application of Problem-based Teaching Method in Medical Students' Nursing Teaching

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Keywords: medical undergraduate; problem-based teaching method; basic nursing teaching

Abstract: **Objective:** To analyze the role of problem-based teaching methods in medical nursing teaching. **Methods:** 160 students enrolling in 2017 are chosen as the study object, and they are divided into two groups, namely PBL teaching group and traditional teaching group. A total of one year of teaching is carried out to analyze the quality of teaching. **Results:** The analysis showed that there have advantages in each observation index of PBL teaching group ($P < 0.05$). **Conclusion:** After the use of the problem-based teaching method in medical nursing teaching, the quality of medical nursing teaching can be effectively improved and adopted sustainably.

Practice is the sole criterion for testing truth, and practical teaching plays an important role in various subject areas. Especially in medical teaching, practical teaching is indispensable. The problem-based teaching method refers to a teaching model based on patient problems. This model implements the teaching idea of student-oriented and learns by solving problems. It is a bridge between theory and practice. At present, this teaching method has become an effective primary school method recognized by medical schools all over the world. It has been partially tested in the basic and experimental courses of many colleges in China, and has achieved good results. In order to explore the teaching effect of this teaching method on the medical students of TCM University, the PBL teaching model is carried out in the teaching process of the undergraduate nursing students enrolling to our school in 2017. The implementation methods and effects are summarized as follows.

1. Objects and methods

1.1 Object

160 students enrolling in 2017 are chosen as the study object, and they are divided into two groups, namely PBL teaching group and traditional teaching group. A total of 22 males and 138 females with an average age of (31.86 ± 1.12) years old are studied for one year. There are 80 cases in the traditional teaching group (12 males and 68 females), and 80 cases in the PBL teaching group (10 males and 70 females). Compared with the above data, $P > 0.05$.

1.2 PBL teaching method

1.2.1 Teaching objectives

The determination of the teaching objectives is the basis for the development of the entire teaching process. PBL teaching is a student-centered teaching method. Therefore, the determination of teaching objectives should fully consider the students' autonomy and initiative. Teachers can discuss with the students when determining the teaching objectives, and then let students discuss the problems independently. The auxiliary role of the teacher is to explain the concept, purpose, content and specific steps and requirements of the clinical nursing operation, so that the students have a general concept. The teaching goal of nursing clinical nursing teaching should combine the basic knowledge of nursing and the clinical nursing operation skills, based on the clinical nursing procedure, and then combine the skill knowledge with the humanities to ensure that the teaching objectives are not separated from the syllabus, and are flexible and inspiring to a certain extent, which can fully mobilize the enthusiasm of students.

1.2.2 Determining the content and learning materials of independent learning

The determination of the content of students' independent learning in PBL teaching mode should focus on solving practical problems with knowledge and skills, while the learning materials should be determined according to the specific requirements of the content of independent learning. The corresponding cases can be compiled in the learning materials based on clinical common diseases and frequently-occurring diseases, and then ask students about the knowledge and skills related to clinical nursing according to the clinical manifestations of the cases. The teacher will provide students with relevant information and ways to obtain relevant information according to the questions they have raised to the students^[1]. Such independent learning mode can stimulate students' interest in learning and their sense of achievement to a great extent. It also cultivates students' ability to find, analyze and solve problems independently. In this process, teachers should guide and inspire students to learn from the basic nursing science and the concept of nursing mode. Besides, it can cultivate students' sense of responsibility and professional ethics for nursing work by the use of humanities knowledge.

1.2.3 Independent learning discussion and simulation practice

Independent learning discussion and simulation practice are indispensable parts of the PBL teaching implementation process. Students conduct self-learning and self-review of materials according to the determined teaching objectives. The questions and deficiencies after completing self-learning should be complemented by mutual discussion with students and simulation practice. Group discussion can be used with in groups of 3~4 people. When the discussion is finished in the group and the members of the group reach a consensus, a team member is elected as the representative of the group to make a conclusion to the teachers and other groups^[2]. Finally, the teacher summarizes the clinical nursing knowledge and operational skills according to the case, and gives the students practical exercises, points out the inadequacies and good points of the students in the process of independent learning, and guides the students to think deeply and reflect. Such summary and exercises can also encourage the students and enhance their confidence and interest in nursing knowledge and operational skills.

1.3 Effect evaluation

After the course of the PBL teaching mode, the teacher can get the teaching effect of the application of PBL teaching mode by means of written examination or practical practice examination for the students.

1.4 Statistical methods

All the data obtained in this paper are processed in SPSS19.0 software, and the measurement data is expressed by the mean standard deviation ($\bar{x} \pm s$), and the t-test is used. If the value is less than 0.05, it is statistically significant.

2. Results

Comparison of the results of the two groups of students before and after the lecture

(1) The average intellectual scores before the students are taught

The average intellectual score of students from the PBL teaching group gets (76.4 ± 5.9) points, while that of students from the traditional teaching group is (75.6 ± 5.1) points. The data indicates that the value is 0.905, and the standard value is 1.082.

(2) The written test scores of basic nursing

The written test scores of basic nursing of students from the PBL teaching group gets (85.2 ± 7.4) points, while that of students from the traditional teaching group is (78.9 ± 9.9) points. It can be seen that the value is 0.905, and the standard value is 1.082.

3. Discussion

3.1 Purpose and significance of PBL teaching in clinical nursing

Basic nursing teaching is a comprehensive applied subject with strong practicality. PBL teaching method can be used to guide students' practical clinical operation technology with theoretical knowledge, which is very helpful to cultivate students' job adaptability, professional ethics and professional technology. In medical colleges and universities in China, although clinical nursing specialty has set up experimental courses, there are still differences between the experimental contents and actual clinical nursing. Moreover, the experimental courses are mainly teacher-oriented, and students' ability to solve practical problems in clinical practice is relatively deficient. So launching the basic nursing teaching course is very helpful to improve students' professional knowledge and professional ability of clinical nursing, and is also the main purpose of basic nursing teaching^[3-4]. Since 1995, the course of basic nursing teaching has been carried out for students. In the basic teaching of nursing science, it not only provides opportunities for students to integrate theory with practice, but also provides students with rich clinical experience, cultivates their ability to analyze and solve problems independently, which lays a certain foundation for their future clinical medical work.

3.2 Advantages of PBL teaching method

The advantages of the PBL teaching model are mainly to stimulate students' interest and initiative in learning, to cultivate and improve students' clinical thinking ability and comprehensive ability. Interest is the best teacher for students. The PBL teaching method guides students to apply knowledge based on existing basic knowledge, and to apply knowledge through independent thinking and consulting materials. At the same time, students' thinking ability stimulated by new knowledge can be obtained, promoting students' enthusiasm for learning and their initiative learning. The most important thing in the process of university study is to cultivate students' ability of independent thinking and problem-solving. The PBL teaching method turns the traditional teacher-centered teaching center into a student-centered teaching center, which gives students great space for self-thinking and problem-solving, and enables students to analyze and discuss problems themselves for a long time. Over a long period of time, students have exercised the ability of thinking to find, analyze and solve problems. This ability will definitely help students in their future clinical care work. In addition, PBL teaching methods are more practical than traditional experimental teaching methods, and have great benefits for cultivating students' ability to response for clinical emergency^[5-6].

Nursing specialty is a very practical specialty. PBL teaching method has been used in the basic teaching of nursing. Through the actual teaching experiment of nursing students in our school, some results have been achieved, which proves the effectiveness of PBL teaching method in nursing specialty. This teaching method puts students in the main position of teaching, gives students a lot of space to play their own, and has a good effect on mobilizing students' enthusiasm and initiative.

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