

The Value of PBL Teaching Method in the Clinical Teaching of Internal Science

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Keywords: PBL teaching method, Internal science, Clinical teaching, Value analysis

Abstract: Objective: To observe the application value of PBL teaching in clinical teaching. Methods: 200 students from September 2016 to June 2017, adopt the regular "one-to-many" teaching mode, set as a regular group. In 2015, our hospital carried out the PBL teaching method in the clinical internship. From September 2017 to June 2018, 203 students in our hospital, adopted PBL teaching method, set as PBL group. The post-teaching results of the two groups of trainees were evaluated, and the acceptance, compliance and satisfaction of the two groups were compared. Results: Students in the PBL group had significantly higher scores on theoretical knowledge, professional operation, patient management and work attitude than in the conventional group. Students in the PBL group (99.51% & 86.5%), teaching compliance (99.01% & 93.05%) (P < 0.05%). Conclusion: In the clinical teaching of PBL, the teaching method can obviously improve the theoretical and practical performance, improve the acceptance and compliance of teaching, and improve the students' satisfaction with teaching.

Internal science is an important clinical medicine course. In order to consolidate the classroom teaching knowledge, master clinical skills and cultivate clinical thinking methods, trainee teaching is an important turning point from theory to clinical practice and the basic guarantee for a clinician to solve clinical problems independently[1-2]. The conventional education mode is one-to-many teaching, but for trainees, what clinical encounter, what teachers teach, what they learn, and the traditional "teacher say, students listen" is often limited by the knowledge of teaching teachers, and

fail to fully learn the clinical knowledge of internal medicine[3]. Problem-based learning of Problem-based Learning (PBL) teaching model, student-centered, is conducive to the cultivation of students' learning ability, innovation ability and practical ability. In 2015, our hospital carried out the PBL teaching method in the clinical internship, and from September 2017 to June 2018. The PBL teaching method was adopted to achieve good clinical teaching results. The results are reported as follows.

1. Data and Methods

The general data will be 200 trainees in our hospital from September 2016 to June 2017, taking the regular "one-to-many" teaching mode, set as a regular group. In 2015, our hospital carried out the PBL teaching method in the clinical internship. From September 2017 to June 2018, 203 students in our hospital, adopted PBL teaching method, set as PBL group. The trainees were selected as junior students in this study, with no significant difference. All students were taught before joining the group, expressed knowledge about the research purpose and research methods, and signed the informed consent form.

Methods Routine group: adopt the one-to-many teaching mode, and the teaching teacher explains the diagnosis, differential diagnosis and treatment beside the patient's bed, mainly teaching, supplemented by questions. PBL group adopts PBL teaching: "one to many", and the patients with common and common diseases of internal medicine are selected as the teaching subjects. Medical history collection and physical examination were completed by the trainee, and the teacher set the questions as follows: ① diagnosis? Diagnostic basis? antidiastole? ② Laboratory and Auxiliary Inspection Program? ③ therapeutic regimen? Students find relevant reference materials for the problem, take teachers to listen to opinions, observe ideas and learning attitude, put forward omissions and mistakes in the form of problems, and trainees discuss and reflect.

Evaluation criterion [4] the theoretical knowledge, professional operation, patient management and working attitude of the enrolled trainees are scored in a percentage system. To the acceptance of teaching, take the form of questionnaire survey, mainly to judge whether the trainees accept the teaching, can accept the teaching methods, and can better grasp the teaching content as the teaching object. Compliance survey, led by the teacher according to the students' performance, for the degree of internship course participation, knowledge acceptance survey, to the better people for good compliance. The satisfaction survey adopts the self-made satisfaction survey questionnaire of our hospital, which mainly targets the trainees' teaching attitude, technology, answering questions and doubts, knowledge mastery and other aspects, and comprehensively investigates the satisfaction of the trainees' teaching and teaching knowledge. The score distribution is 100-0, of which 100 is very satisfactory, 99-85 is basic satisfaction, 84-70 is satisfaction, and 69 and below are unsatisfactory. Total satisfaction = very satisfaction + basic satisfaction + satisfaction.

1.4 Statistical methods SPSS 21 software analysis, mean \pm standard deviation ($\pm s$) represents measurement data, intergroup comparison t-test; percentage performance count, data compared to χ^2 Verification, $P > 0.05$, no statistical significant difference, $P < 0.05$, and the difference was statistically significant.

2 Results

Clinical score score of the two trainees The trainees in the PBL group were significantly higher in theoretical knowledge, professional operation, patient management and working attitude than in

the conventional group, and the difference was statistical significant ($P < 0.05$). See Table 1 for details.

Table 1: Clinical score scores of two trainees ($\pm s$)^x

group	Example number	speculative knowledge	Professional operation	patient administration	working attitude
PBL group	203	98.03±1.03	98.41±0.83	98.55±0.62	98.44±0.57
Conventional group	200	93.85±2.14	94.19±2.16	91.76±3.53	90.75±4.93
t		10.125	10.521	11.034	9.014
P		0.000	0.000	0.000	0.000

Acceptability, compliance and satisfaction of trainees compared between PBL and conventional trainees with statistical significance (99.51% & 86.5%), and 99.01% & 93.5%) ($P < 0.05\%$). See Table 2 for details.

Table 2: Comparison of the teaching acceptance, compliance, and satisfaction survey between the two groups of trainees [n, (%)]

group	Example number	Acceptability of teaching	compliance	Satisfaction with teaching				
				Very satisfied	be basically satisfied	satisfied	discontent	Always satisfied
PBL group	203	202(99.51)	201(99.01)	192(94.58)	11(5.42)	0(00.00)	0(00.00)	203(100.00)
Conventional group	200	173(86.50)	170(85.00)	56(28.00)	73(36.50)	58(29.00)	13(6.50)	187(93.50)
x ²		13.535	14.452					10.524
P		0.000	0.000					0.000

3. Discussion

In the teaching of clinical trainees, take more of the teacher teaching, students listen to, students will not take the initiative to find and solve problems, so the acceptance and compliance to trainees are poor[5-6]. And PBL teaching can promote students 'concept migration of new problems, improve students' ability to comprehensively use knowledge and independent learning ability, so as to form the attitude and ability of lifelong learning[7-9]. Make students are not the passive carriers of medical knowledge, but the active absorption, integration and innovation of medical knowledge[10-11]. In this study, the trainees in the PBL group had significantly higher scores on theoretical knowledge, professional operation, patient management and working attitude than in the conventional group, which was statistically significant ($P < 0.05$). It can be seen that in the teaching of internal medicine trainees, the mode of teaching of PBL teaching method can obviously improve the theoretical and practical knowledge of trainees, and also have a high improvement to the patient management and working attitude. The trainees in the PBL group and the regular group showed teaching acceptance (99.51% & 86.5%), teaching compliance (99.01% & 85%), and teaching satisfaction (100% & 93.5%) ($P < 0.05\%$). It can be seen that compared with the traditional one-to-many teaching mode, adopting the PBL teaching method can significantly improve the acceptance and compliance of trainees, and then improve the effect of trainees and obtain high satisfaction evaluation[12-14].

To sum up, in the clinical teaching of PBL trainees, the application of P science teaching method can significantly improve the theoretical and practical achievements of students, improve the acceptance and compliance of trainees to teaching, and improve the students' satisfaction with teaching.

Acknowledgements

Education Reform Project of Guangxi Department of Education, Project No.: 2016JGB260; 2. Key Projects of Education and Teaching Reform and Research of Guangxi University of Traditional Chinese Medicine, Project No.: 2019A015; 3. Education Reform Project of Ruikang Clinical Medical College of Guangxi University of Traditional Chinese Medicine, Project No.: 0501906032.

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