Study on the Application Effect of the Case Teaching Method in the Clinical Teaching of the Nephrology Department

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Abstract: Objective: To explore the feasibility of applying case teaching method in nephrology clinical teaching, analyze the specific role of case teaching method, and study its application effect. Methods: 30 medical students who participated in standardized training in the department of Nephrology of our hospital from January to December 2020 were randomly divided into two groups A and B, and the traditional teaching mode and case teaching method were applied to compare the learning effect of the two groups. Results: The assessment performance and nurse-patient communication of group B were better than that of group A, and the student satisfaction was higher than that of group A (P<0.05). Conclusion: The application effect of case teaching method, not only can make the teaching goal more scientific, clear, also can effectively improve medical students' learning enthusiasm, cultivate the clinical thinking, constantly improve students' professional theoretical knowledge and practice level, etc., to improve their comprehensive quality ability, let patients can get better service, effectively reduce the occurrence of disputes, so such teaching mode is worth widely.

Keywords: nephrology department, case teaching method, clinical teaching

Introduction

The department of nephrology involves many disciplines, such as pathology, and is a highly practical discipline. However, the specific symptoms and manifestations of many types of diseases in this discipline are very similar, which makes the difficulty of confirming the disease type and treating the diseases more rapidly improved. In addition, the treatment plan and commonly used drugs in this discipline are highly professional, which puts forward higher requirements for medical students in this discipline, not only to have a solid professional theoretical foundation and operational skills, but also to have good clinical diagnosis and treatment thinking ability, so as to ensure that patients can get effective treatment[1]. However, the rotation time of medical students in nephrology is relatively short. In addition, many hospitals still emphasize the leading role of teaching teachers when carrying out medical education, but seriously ignore the subjectivity of medical students, which leads to their poor learning effect. Moreover, in the traditional classroom teaching, the content taught by the teachers is of high randomness, and some students are difficult to keep up with the teachers' thinking, which leads to their poor learning quality. Therefore, in order to effectively improve the teaching quality and improve the comprehensive quality and ability of medical students, it is necessary to adopt the appropriate teaching mode. Therefore, this paper focuses on the case teaching method, and now the results are reported as follows.

1. Data and methods

1.1 Information

Thirty medical students from the department of Nephrology of our hospital were randomly divided into two groups A and B, 15 in each group, with an average age (24.68 ± 1.93). There was no significant difference in the general data (P> 0.05).

1.2 Methods

Group A applies the traditional teaching model. After the medical student, the head nurse?(Section director) Guide and introduce the teachers, and then each teacher gives teaching guidance, organize medical students to participate in the daily shift handover (on duty) of the department, so that they can master the assigned process and requirements. In addition, each teacher also needs to organize and lead medical students to receive treatment, ward rounds, and personally demonstrate the medical history inquiry, analysis of the condition, so that they can gradually master the relevant matters needing attention. During this period, the teacher also needs to conduct random questions of medical students and check their current learning conditions to determine the direction of later teaching. At the same time, teachers can also improve students' learning enthusiasm through this method, and then constantly improve their ability. After the end of the study, the department also needs to examine the medical students in this group, and then conduct a comparative analysis with group B.

Group B applies case teaching method, the specific contents are as follows: (1) Teaching preparation: ① Analysis: Each medical student has differences in the mastery of professional knowledge and practical operation skills, and there are great differences in the learning habits of each medical student. Therefore, in order to further improve the teaching effect and enable medical students to learn more knowledge and skills, we first need to choose experienced teachers. And after determine the instructor, each teacher before teaching activities, also deal with group B medical students analysis, collect the school academic performance and comprehensive quality evaluation data, analysis, evaluation of medical students' current knowledge skills level, evaluate their learning ability, etc., and for the choice of teaching case and the choice of teaching methods to provide the necessary support. In addition, in the process of teaching, the teachers can also properly adjust and optimize the current teaching methods and activities according to the results of the learning situation analysis, so as to effectively promote the teaching effect and improve the teaching quality[2]. ② Case analysis: High-quality clinical cases can effectively stimulate medical students' interest in learning, further deepen their understanding of theoretical knowledge, master the application skills of corresponding operational skills, etc., and then gradually improve the professional skills of medical students. In addition, diversified and representative clinical cases can also broaden the vision of medical students, and thus effectively improve their diagnosis and treatment ability, cultivate their clinical thinking ability, and promote their rapid development. Therefore, the teachers need to collect and sort out more high-quality clinical cases. Then, according to the results of the learning situation analysis, the clinical cases more suitable for the students were selected, so as to effectively ensure the teaching effect. Then, each teacher can make a teaching plan according to the results of learning situation analysis and the characteristics of nephrology department, organically integrate the knowledge of various diseases, diagnosis and differential diagnosis with clinical cases, and clarify the corresponding teaching purpose and content in each teaching link. Then, the teacher can design reasonable problems according to the results of the learning situation analysis, so as to guide the medical students to conduct in-depth thinking and analysis, so as to continuously improve their diagnosis and treatment ability. In addition, in order to further improve the teaching effect, the department also need to organize the teachers for collective lesson

preparation, let its share their teaching plan, let other teachers advice, to further optimize the teaching plan at the same time, let each teacher can fully grasp the teaching plan, to ensure that it can be reasonable application, also let the teacher in the teaching process according to the teaching actual situation of appropriate adjustment, effectively improve the teaching effect.

(2) Case teaching: In order to enable medical students to have a deep understanding of clinical cases, before classroom teaching, teachers should first share clinical case materials with each medical student in advance, and have in-depth communication with each medical student, so that they can understand the purpose and positive role of pre-class preparation. Then, the teacher asked the medical students to freely choose a clinical case data for analysis, and set the questions according to the content of the data, so that they can deeply analyze and think about the case in the class[3]. At the same time, the teacher also requires medical students to collect and find relevant information, prepare written speeches, to facilitate other medical students to understand and master the clinical case data. During the teaching period, in order to avoid some medical students from resisting speaking publicly, the teacher can first divide them into three or four groups, and let each medical student to make a speech in the group first, so as to relieve their inner tension and anxiety, and then effectively improve their speech effect. In addition, during the group speech, other group members can also give questions and corresponding suggestions to the group members, and further optimize the speeches of the group members, so as to effectively improve the quality of their speeches. In addition, group discussion and speech can also improve the team cooperation ability of each medical student, which is conducive to their later development. In the process of group discussion and speech, the teacher also needs to observe and guide each group member to effectively control the whole teaching rhythm, so as to improve the teaching efficiency. After completing the group discussion and speech, each medical student needs to give a speech on the stage, so that other medical students can have a further understanding of each clinical case. At the same time, the teacher also needs to make a reasonable evaluation of each medical student's speech, and then guide the medical students to question and analyze the clinical case,

So that they can master the knowledge contained in the clinical case, and understand the clinical diagnosis ideas and treatment difficulties of such diseases, so as to effectively improve their diagnosis and treatment ability and professional knowledge level[4]. Finally, the teachers also need to summarize each clinical case, and rationally use video teaching methods, to further enhance the impression of medical students, so that they can effectively master all kinds of knowledge.

1.3 Statistical treatment

The difference were statistically significant at $P < 0.05$ as processed by SPSS21.0 software.

2. Results

2.1 Comparison of assessment results

The assessment result of Group B was better than that of Group A, with $P < 0.05$. The details are shown in Table 1:

Table 1 Comparison of assessment scores (, score)$\bar{x} \pm s$

Project	Group A (n=15)	Group B (n=15)	T	P
Theoretical written test	84.11±5.57	86.09±3.64	2.786	<0.05
history-taking	80.53±5.94	89.73±3.57	3.641	<0.05
check-up	80.51±3.52	87.92±3.94	2.861	<0.05

	83.75±8.50	88.07±7.78	2.227	<0.05
Assisted examination and judgment	83.75±8.50	88.07±7.78	2.227	<0.05
Case analysis	80.52±7.26	85.02±6.46	2.793	<0.05
Medical record writing	83.56±5.63	87.65±3.96	3.589	<0.05

2.2 Comparison of communication between nurses and patients

The communication between nurses and patients in Group B is better than that in Group A, P <0.05, and the details are shown in Table 2:

Table 2 Comparison of nurse-patient communication (points) $\bar{x}\pm s$

Project	Group A (n=15)	Group B (n=15)	P
Total communication skills	70.92±9.21	81.73±9.64	<0.05
Establish a harmonious relationship	15.43±2.12	16.57±2.63	<0.05
Sharp to listen to	14.51±2.63	15.67±2.86	<0.05
Confirm patient problems	14.76±2.62	15.54±2.87	<0.05
fellowship	8.27±1.25	10.89±2.02	<0.05
Pass effective information	6.21±1.22	7.59±1.37	<0.05
Verify the feeling	12.63±2.24	13.77±2.68	<0.05

2.3 Comparison of student satisfaction

Student satisfaction in group B was higher than that in group A, (P<0.05), as shown in Table 3:

Table 3 Comparison of student satisfaction

Group	n	Very satisfied	be basically satisfied	discontent	Satisfaction rate
A group	15	6（40%）	4（26.67%）	5（33.33%）	10（66.67%）
B group	15	8（53.33%）	6（40%）	1（6.67%）	14（93.33%）
P					<0.05

3. Discussion

Kidney disease is a common clinical disease. If the patient does not get the correct diagnosis and effective treatment, it will have a huge impact on his life. When the situation is serious, it may even deteriorate into uremia, thus threatening its life safety. However, there are many types of kidney diseases, and the related diseases are very similar. Therefore, it is necessary to conduct scientific training medical students to continuously improve their clinical diagnosis and treatment ability. However, in the traditional teaching mode, the theory of nephrology in this subject is less taught, and more clinical probation is used to quickly improve its theoretical knowledge level[5]. But this kind of teaching also has obvious

disadvantages, in the process of professor, many teachers do not pay attention to the main characteristics of renal medicine professor, there is no systematic training guidance for medical students, medical students do not know the focus of learning, the clinical thinking ability cultivation effect is not high, medical students clinical treatment ability also failed to get rapid promotion. In addition, under this kind of teaching mode, medical students have low interest in learning, so they can only study according to the requirements of the teachers, without in-depth analysis and thinking of various practical cases, resulting in low teaching effect. And after the study found that the application of case teaching method effect is obvious, not only can make the teaching goal more scientific, clear, also can effectively improve medical students' learning enthusiasm, cultivate their clinical thinking, improve students' professional theoretical knowledge and practical operation level, so as to improve their comprehensive quality ability, let patients can get better service, effectively reduce the occurrence of disputes, and group B each data are better than group A ($P < 0.05$), so the teaching mode is widely used.

Conflicts of interest

The author declares no conflicts of interest regarding the publication of this paper.

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