

Application Effect of Clinical Pathway Teaching Method in Clinical Teaching of Cardiology

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Abstract: *Objective:* To study the clinical effect of applying clinical pathway teaching method in clinical teaching of cardiology. *Methods:* This paper verifies and calculates that 50 interns working in cardiology department in our hospital from October 2016 to October 2019 are divided into groups and compared in the form of double-blind method. The reference group ($n=25$) uses traditional teaching methods, and the experimental group ($n=25$) uses clinical pathway teaching method. The satisfaction degree, teaching quality, theoretical assessment results, operation assessment and comprehensive assessment results of interns in the experimental group and the reference group are compared. *Results:* The satisfaction degree, theoretical examination result, operation examination, comprehensive examination result, improvement of team spirit, professional quality, improvement of professional ethics, standardized diagnosis and treatment, improvement of clinical problem handling ability, stimulation of learning interest and cultivation of clinical thinking of the interns in the experimental group were compared with those of the reference group ($P<0.05$), showing the value of statistical comparison and demonstration between data indexes. *Conclusion:* The application of clinical path-teaching method in clinical teaching of cardiology can improve the clinical teaching effect and teaching quality.

Keywords: Clinical pathway teaching method; Cardiology; Clinical teaching; Application effect

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Clinical practice is an essential stage in the process

of changing from intern to clinical doctor, which is mainly to make intern better combine clinical practice and theoretical knowledge learned, and improve the daily working ability and level of intern. Moreover, the patients admitted to the Department of Cardiology generally have serious illness and the illness progresses rapidly. At this time, clinicians are urged to have a large daily workload and relatively high work risks. Therefore, clinicians need to have a high technical level^[1-2]. During the internship, interns can continuously improve their clinical experience and enhance their psychological quality according to the clinical teaching mode. However, the traditional clinical teaching mode can't achieve ideal effect in teaching interns. Based on this, this paper mainly analyzes the clinical effect of clinical pathway teaching method and traditional teaching method in 50 cardiology interns who worked in our hospital from October 2016 to October 2019.

1 Datas and methods

1.1 General Datas

In the process of calculating the data, 50 cardiology interns who worked in our hospital from October 2016 to October 2019 were divided into two groups in a double-blind method. Each group included 25 interns. The experimental group included 22 female interns and 3 male interns. The upper and lower age ranges were 24 and 19 respectively, and the median age was (22.54 ± 0.24) years, including 15 interns with college education and 10 interns with undergraduate education. There were 21 female interns and 4 male interns in the control group. The upper and lower age limits were 25 and 18 years old respectively, and the median age was (22.32 ± 0.38) ,

including 14 interns with college education and 11 interns with undergraduate education. Compared with the basic data of cardiology interns in the experimental group and the control group ($P>0.05$), there was no demonstration analysis difference between statistics.

1.2 Methods

The control group carried out traditional teaching methods. After the interns entered the cardiology department to study, the teaching teacher should explain the basic situation of the department for them, guide the interns to refer to the clinical model for treatment and diagnosis and treatment of patients according to the requirements of the teaching syllabus, popularize relevant knowledge such as level 3 ward rounds and daily teaching ward rounds for the interns according to the daily diagnosis and treatment plan, and ask unified questions at the next lecture.

The experimental group carried out clinical pathway teaching method: (1) In the teaching process, the teacher should first determine a disease as a case, and the teacher should understand the development status, application background, application significance and related management content of clinical pathway teaching. (2) The teaching teacher shall formulate a clinical pathway table according to the actual situation, carry out the treatment, diagnosis and treatment of the patients and their out-of-hospital follow-up according to the relevant contents of the clinical pathway table, and ask questions for the interns, such as examination of the whole body's key points, symptoms before onset, disease-related inducing factors, clinical manifestations of the diseases and their differences from other diseases, self-defining methods of the diagnosis and treatment plan, and monitoring the requirements and methods of clinical basic indicators. (3) After the interns are fully familiar with the clinical pathway management form, they need to read and find relevant materials according to their own knowledge, understand the relevant contents involved in the clinical pathway form, and answer the questions given by the clinical teaching teachers. At the same time, the teaching teachers need to focus on training interns' independent thinking ability to help students construct clinical diagnosis and treatment ideas. (4) Interns should simulate asking about the patient's medical history and physical examination, and should

have a comprehensive grasp of the occurrence of the disease to enhance awareness of the disease. At the same time, it can make scientific plans and consents according to the clinical pathway table, communicate with patients in a timely manner, explain the significance of clinical pathway and its treatment process, relevant matters needing attention, and strengthen doctor-patient communication skills. (5) The interns need to make full diagnosis and treatment of patients according to the treatment path table, such as discharge orders, discharge follow-up, relevant examinations and drug administration, so as to ensure that the interns can fully understand the complications of diseases and matters needing attention in clinical practice, analyze the clinical symptoms and signs of patients, and cultivate interns' clinical skills and thinking ability. (6) During the simulated ward round, the teaching teacher needs to guide the interns to simulate ward round so that they can think about the reserved problems and correct them in time. At the same time, the the teaching teacher should carry out correct guidance according to the direction of clinical treatment path. Th teaching teacher should also summarize according to the actual situation and training requirements, clarify the diagnosis and treatment methods of diseases, and urge the interns to better apply theoretical knowledge to solve the problems.

1.3 Analysis of index data

Research and compare the satisfaction degree, assessment results (theoretical assessment results, operation assessment results, comprehensive assessment results) and teaching quality (improving team spirit, professional quality, professional ethics, standardized diagnosis and treatment, improving clinical problem handling ability, stimulating learning interest and cultivating clinical thinking) of cardiology interns in the control group and the experimental group.

1.4 Statistical Methods of Data

The data calculation in this paper adopts SPSS 23.0 for Windows statistical software to analyze all data of 50 cardiology interns. in the form of (mean \pm standard deviation), the evaluation results and teaching quality of cardiology interns in the experimental group and the control group are described, t-test is performed. The satisfaction degree of cardiology interns in

the experimental group and the reference group to teaching is described in the form of rate (%), and chi-square test is performed ($P < 0.05$), showing the statistical comparative demonstration value between data indexes.

2 Results

2.1 The satisfaction degree of interns in cardiology

department between the experimental group and the reference group was calculated

Chi-square calculation shows that 96.00% of the interns of cardiology department in the experimental group have more clinical advantages than 72.00% in the reference group ($P < 0.05$), showing the value of statistical comparison and demonstration between data indexes.

Table 1. Comparison of satisfaction of Interns in cardiology department between experimental group and control group on teaching

Groups	numbers	Very satisfied	satisfied	Dissatisfied	Degree of satisfaction
The experimental group	25	13	11	1	96.00%
The control group	25	6	13	6	72.00%
χ^2					5.3571
P					0.0206

2.2 The teaching quality of cardiology interns in the experimental group and the control group was calculated

T calculation shows that the interns in cardiology department of the experimental group have improved team spirit, professional quality, professional ethics,

standardized diagnosis and treatment, improved clinical problem handling ability, stimulated learning interest and cultivated clinical thinking after treatment, compared with the reference group data ($P < 0.05$), showing the statistical comparative demonstration value between the data indexes.

Table 2. Comparison of teaching quality between experimental group and control group

Groups	Numbers	Improved team spirit	Improved professional quality	Improved professional ethics	standardized diagnosis and treatment	improved clinical problem handling ability	stimulated learning interest	cultivated clinical thinking
The experimental group	25	82.11±4.23	88.54±3.12	86.32±2.98	86.32±2.95	89.65±4.11	85.36±2.39	89.32±2.92
The control group	25	71.54±3.23	73.14±3.18	70.54±4.32	71.69±2.39	72.34±3.25	73.24±2.12	70.64±2.62
t		9.9301	17.2840	15.0339	19.2669	16.5180	18.9685	23.8076
P		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

2.3 The assessment results of interns in cardiology department in the experimental group and the control group was calculated

T calculation shows that the theoretical examination results, operation examination and comprehensive

examination results of interns in cardiology department of the experimental group are compared with those of the reference group ($P < 0.05$), showing the value of statistical comparison and demonstration between data indexes.

Table 3. Comparison of assessment results of interns in cardiology between experimental group and control group

Groups	numbers	Theoretical assessment (scores)	Operation assessment (scores)	Comprehensive assessment (scores)
The experimental group	25	94.32±3.56	92.58±3.51	93.54±2.63
The control group	25	81.23±2.54	80.32±4.11	80.65±2.21
t		14.9660	11.3417	18.7613
P		0.0000	0.0000	0.0000

3 Conclusion

Cardiology is actually a key department for the diagnosis and treatment of cardiovascular diseases, which mainly covers acute myocardial infarction, angina pectoris, hypertension, arrhythmia, heart

failure and other diseases. If effective treatment cannot be carried out, it is easy to delay the best treatment time for patients. Based on this, the teaching and treatment level and technology of cardiology are increasingly required. Although the traditional clinical teaching method can improve the interns' treatment ability, due to the lack of dominant

position in teaching, the interns' clinical problem-solving and practical ability cannot be effectively cultivated, which leads to the inability to meet the actual clinical needs^[3-4]. The clinical pathway teaching mode is based on the integration of teaching contents and teaching objectives, and systematizes and standardizes teaching contents on the basis of standardized teaching processes. It enables interns to carry out the learning mode prepared in advance by preview and data consulting machines, and to understand their own shortcomings, which is conducive to enhancing the enthusiasm of interns and increasing the teaching effect^[5-6]. At the same time, clinical pathway teaching mode can also fully mobilize interns' enthusiasm and initiative in learning, ensure the smooth development of the teaching process, promote teachers to make clear different teaching objectives, carry out planned and purposeful teaching activities, stimulate teachers' enthusiasm and enthusiasm, avoid blind teaching, and improve clinical teaching level^[7-8].

The calculation of this result shows that the interns of cardiology department in the experimental group are better than those in the control group in satisfaction with teaching, theoretical examination results, operation examination, comprehensive examination results, improvement of team spirit, improvement of professional quality, improvement of professional ethics, standardization of diagnosis and treatment, improvement of clinical problem handling ability, stimulation of learning interest and cultivation of clinical thinking ($P < 0.05$), showing the value of statistical comparison and demonstration between

data indexes.

Based on the above conclusions, the application of clinical pathway teaching method in cardiology interns is superior to the traditional teaching method in clinical value.

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