Application of rain classroom in rehabilitation medical education

Guan Fu, Xiangzhen Fan, Haimeng Liu*

Department of Rehabilitation Medicine, Binzhou Medical University Hospital, Binzhou, China
haimeng1215@126.com

Abstract: *Objective: To study the application effect of rain classroom in rehabilitation medicine education. Methods: firstly, the data preparation method was used to select the research objects, then the random classification method was used to divide the selected research objects, and finally the investigation method was used to test the teaching effect and analyze the application effect of rain classroom in rehabilitation medicine education. Results: the results of the research group after rain classroom teaching were higher than those of the control group without rain classroom education, and the satisfaction value of the research group was higher. Conclusion: the application of rain classroom can effectively improve the teaching effect of rehabilitation medicine, has certain application value, and can be used as a reference for follow-up rehabilitation medicine teaching.*

Keywords: *rain classroom; rehabilitation medicine; education application; research; teaching*

1. Introduction

Rehabilitation medicine is a kind of medicine related to the recovery of the disabled and patients. It belongs to one of the four major medicine [1]. It has an important effect on the rehabilitation, diagnosis, treatment and prevention of patients. The earliest concept of rehabilitation medicine originated in the mid-20th century. With the development of modern medicine, rehabilitation medicine has gradually developed into a comprehensive medicine integrating diagnosis and treatment [2], Therefore, rehabilitation medical education plays an important role in medical curriculum. Affected by the particularity of the actual teaching of rehabilitation medicine, there are often problems that the teaching knowledge is too abstract [3] and students have difficulty in understanding in the actual rehabilitation medicine education. These problems will not only affect the teaching effect, but also reduce students' interest in learning.

Rain classroom is an innovative intelligent solution developed by Tsinghua University, which can provide relevant teaching data information knowledge at any time in the process of Education [4]. It mainly relies on intelligent terminals to provide students with good teaching experience, so as to improve the teaching effect of rehabilitation medicine. Therefore, this paper studies the teaching effect of rain classroom in rehabilitation medicine, To provide reference for the teaching innovation of follow-up rehabilitation medicine.

2. Data and methods

According to the research needs, several students participating in rehabilitation medical education are selected for basic classification, and they are randomly divided according to the needs of the experiment. One part is used as the research group [5], and the other part is used as the control group. The comparison of students' data is shown in Table 1 below.

Table 1: Comparison of student data

category	Research Group	control group
average age	28.36	27.14
Gender (male / female)	(15/5)	(15/5)
Major (rehabilitation medicine / others)	(15/5)	(15/5)
Position (physician / others)	(10/10)	(10/10)
Education (Graduate / undergraduate)	(13/7)	(12/8)

It can be seen from Table 1 that the research scheme can be designed according to the basic composition of students: first, select the research object by using the data preparation method, then divide the selected research object by using the random classification method, and finally test the teaching effect by using the investigation method to analyze the application effect of rain classroom in rehabilitation medical education.

The whole experimental process is divided into several steps. Firstly, the traditional teaching methods are used for teaching in the control group. The teaching content is set according to the actual teaching needs. The total teaching time is 50min [6]. The teaching time of each part is 10min, 15min, 15min and 10min respectively, and the key and difficult questions are answered according to the needs of students. The control group uses rain classroom for teaching. Firstly, according to the course content, Teachers generate relevant teaching QR codes, invite students to study, then use rain classroom for dynamic teaching, send teaching courseware to students, and timely adjust the explanation direction according to students' feedback. Students can also sign in before class to ensure the real-time learning of students. In the process of applying rain classroom, middle school students can use the shortcut keys in the classroom to release the problems in learning at any time, and then the teachers can give a comprehensive explanation. In addition, teachers can also set up interactive courses to test students' mastery of knowledge, and adjust the teaching scheme according to the contents of students' questions.

After teaching, set up appropriate teaching evaluation methods, that is, organize the students in the experimental group and the control group to conduct on-site assessment, set questions related to the teaching course, set the full score as 100 points, the score higher than 90 points proves that the teaching effect is excellent, the score between 70 and 80 proves that the teaching effect is good, set 60 points as the pass line, and use the survey method to calculate the students' satisfaction with teaching after the test, And use spss19 0 for statistical analysis, calculate the satisfaction value at this time, and conduct Student-t verification.

3. Result

According to the above experimental process, 10 students in the research group were randomly selected, and their transcripts after teaching are shown in Table 2 below.

Table 2: Results of research group

student	achievement	student	achievement
1	91.2	6	95.5
2	92.4	7	93.2
3	94.5	8	92.2
4	98.6	9	90.3
5	89.5	10	94.2

It can be seen from Table 2 that the scores of students randomly selected from the research group fluctuated up and down by 90 points, which proved that the teaching effect of the research group was excellent. Next, 10 students in the control group who used traditional teaching methods were randomly selected. The transcripts are shown in Table 3 below.

Table 3: Results of control group

student	achievement	student	achievement
1	71.6	6	74.3
2	70.5	7	72.5
3	73.4	8	72.6
4	75.3	9	71.5
5	77.5	10	76.3

It can be seen from Table 3 that the scores of the control group are between 70 and 80, which proves that the teaching effect of the control group is good, but there is still a certain gap compared with the research group. Therefore, it proves that the teaching effect of applying rain classroom teaching has been significantly improved.

After the above results are tested, the satisfaction indicators of the research group and the control group need to be tested, as shown in Table 4 below.

Table 4: Satisfaction index

type	Study group indicators	Control group index
Teaching atmosphere	0.925	0.615
Interactive effect	0.994	0.663
teaching efficiency	0.935	0.648
learning interest	0.914	0.712
Learning effectiveness	0.954	0.596
Teaching experience	0.971	0.634
Comprehensive evaluation	0.932	0.549

It can be seen from Table 4 that the results of the research group after the application of rain classroom teaching are higher than those of the control group without rain classroom education, and the satisfaction value of the research group is higher, which proves that rain classroom has important application value for rehabilitation medicine education.

4. Discussion and conclusion

In the process of rehabilitation medicine education, there are many teaching methods. With the development of information technology, some problems have gradually existed in the traditional teaching methods. The first is the problem of students' learning literacy. Different types of students have different degrees of acceptance of knowledge and their own scope of knowledge. Therefore, there may be difficulties in students' acceptance caused by high-span teaching, The second is the students' interest in learning. The traditional rehabilitation medicine education process is too boring. Students face difficulties in understanding and naturally can't keep up with their learning initiative. The third is the improvement of students' ability. The traditional teaching method mainly depends on cramming education, so students' thinking ability can't be cultivated, which reduces the actual teaching effect.

Using rain classroom for teaching can not only adapt to the current development background of educational informatization, but also design characteristic teaching schemes according to the actual learning situation of students. In addition, it can also allocate reasonable teaching time and improve teaching efficiency. In the process of using rain classroom, it can actively interact with teachers and Preview and interact with information technology, Reduce the difficulty of students' understanding of rehabilitation knowledge. In addition, using rain classroom for teaching can also improve students' actual teaching experience and cultivate teachers' innovative teaching consciousness, so as to effectively improve the teaching efficiency of rehabilitation medicine. Therefore, it is necessary to make effective use of rain classroom in rehabilitation medicine teaching to contribute to the development of rehabilitation medicine teaching.

5. Conclusions

To sum up, rehabilitation medicine plays an important role in the prognosis and diagnosis and treatment of patients. Therefore, improving the teaching effect of rehabilitation medicine is of great significance to promote the development of rehabilitation medicine in China. Therefore, this paper studies the application of rain classroom in rehabilitation medicine education. The research results show that rain classroom can effectively realize the connection between teachers and students through intelligent terminals, It has certain application value to maximize the teaching effect of rehabilitation medicine and improve students' performance of rehabilitation medicine.

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