The Impact of Micro Class Health Education Model on the Health Education Ability of Pediatric Observation Room Nurses

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Abstract: This article aims to explore the application of micro class health education model in the program management of pediatric emergency observation rooms, and evaluate its effectiveness through data comparison and analysis. The study selected nurses who participated in standardized training from January 2022 to June 2023 as the research subjects, divided into a control group and an experimental group. The control group collected data under traditional training methods for new nurses in the emergency department; The experimental group collected data for nurses trained in the micro class health education model. The data collection time is within one month after the training. Through comparative analysis, this study found that the micro course health education model has significant advantages in improving nurses' program management abilities. Firstly, the micro class health education model can stimulate nurses' interest in learning and improve their learning effectiveness; Secondly, this model has the characteristics of strong targeting, rich content, and diverse forms, which can meet the needs of different patients; Finally, this model can improve nurses' health education abilities in practical work, thereby improving patient satisfaction.

1. Introduction

With the continuous development and progress of medical technology, the status of health education in medical services is increasingly prominent. Especially in the pediatric emergency observation room, health education is particularly important because of the particularity of the patient group. However, there are many limitations in traditional health education methods, such as insignificant effect and low participation of nurses, which all affect the effective implementation of health education [1]. Program management, also known as business process management or enterprise process management, its basic idea is to redesign the internal organizational structure, operation methods and code of conduct of enterprises with the operation process as the core, so as to achieve the progress of performance such as cost, quality, service and speed [2-3]. In recent years, the methods and ideas in programmed management have also been widely used in hospital

management and achieved good results. Through the redesign of business process, the operational efficiency and service quality of the hospital can be optimized, so as to better meet the needs of patients [4]. Micro-class health education mode is a new type of health education mode, which presents health education content to learners through micro-video, animation and other forms, and has the characteristics of diverse forms, rich content and convenient learning [5]. Relevant research shows that the application of micro-class health education model in medical field has achieved good results [6]. Firstly, it can significantly improve the health education ability of nurses; Secondly, it can enhance the mastery of patients' health knowledge; Finally, it can improve patient satisfaction [7-8].

This study will analyze the traditional health education model of pediatric emergency observation room, find out its shortcomings and analyze the reasons. Then we will introduce the micro-class health education model, redesign the health education process in the pediatric emergency observation room, and formulate the corresponding implementation plan. Next, through the method of randomized controlled trial, the program management ability and patient satisfaction of nurses before and after the implementation of micro-class health education model were evaluated. Finally, the experimental results will be statistically analyzed to explore the application effect of micro-class health education model in the program management of pediatric emergency observation room.

The purpose of this study is to explore the application effect of micro-class health education model in the program management of pediatric emergency observation room. The results of the study hope to provide useful reference and enlightenment for improving the quality of health education in pediatric emergency observation room, and contribute to the continuous improvement and development of medical services.

2. Research methods

2.1. Research objects

The purpose of this study is to explore the effect of micro-class health education model on improving nurses' program management ability by using randomized controlled trial design. The subjects were nurses who participated in standardized training, and they were randomly divided into control group and experimental group. Nurses in the control group received traditional training methods, including centralized teaching, lectures and case analysis. The training content mainly includes health education methods and communication skills of common diseases in emergency department. The training time is once a week for a total of 4 weeks.

Nurses in the experimental group were trained in micro-class health education mode. During the training period, they need to master micro-video production, animation production and other technologies, and at the same time systematically sort out the knowledge points of health education. The training content mainly includes micro-video production skills, basic principles of animation production, collection and arrangement of health education knowledge points, etc. The training time is also once a week, totaling 4 weeks. During the training process, the nurses in the experimental group need to make more than three micro-videos or animations and apply them in practical work.

The contents of these micro-videos or animations are rich and varied, including but not limited to the popularization of health education knowledge, rehabilitation guidance and psychological support for common diseases in emergency departments. The duration of each micro video or animation is no more than 10 minutes, which is convenient for learners to watch and learn anytime and anywhere. This fragmented learning method can help nurses to study independently after work and improve their health education ability and professional quality.

By comparing the scores of program management ability and patient satisfaction of nurses in the

control group and the experimental group after training, this study found that nurses trained by micro-class health education mode performed better in practical work than nurses trained by traditional training methods. Therefore, the results of this study show that the micro-class health education model has obvious advantages in improving nurses' program management ability, and can also improve patients' satisfaction and promote the effective implementation of health education.

2.2. Data collection

Within one month after the training, data were collected from nurses in the experimental group and the control group. We used the method of questionnaire survey to get the basic information of nurses, the cognition of health education and the mastery of patients' condition through a series of questions. For the basic situation of nurses, basic information including age, gender, work experience and so on was collected. The collection of this information can help us better understand the overall situation of the participants and provide more dimensions for data analysis. In addition, background information such as nurses' academic qualifications and professional abilities was collected to better evaluate their health education ability. In order to understand nurses' cognition of health education, an open-ended question was used to investigate. By answering these questions, we can better understand the nurses' cognition of health education. In addition, the micro-video or animation made by the nurses in the experimental group was evaluated. These micro-videos and animations are tools for nurses in the experimental group to carry out health education in practical work, so we evaluated their quality, content and form. Through these questionnaires and the evaluation of micro-video or animation made by nurses in the experimental group, we can get a more comprehensive understanding of nurses' cognition of health education and their health education ability in practical work. At the same time, we can also compare the differences between the experimental group and the control group through data analysis, and further verify the effect of micro-class health education model in improving nurses' program management ability.

2.3. Data analysis

The data were statistically analyzed by SPSS 24.0 software. Descriptive statistics are made on the results of the questionnaire survey, and the average and standard deviation of each index are calculated. At the same time, the basic situation of nurses in the experimental group and the control group, the cognition of health education and the mastery of patients' condition were tested by t test or chi-square test to understand the differences between the two groups.

3. Comparative analysis of data

Through comparative analysis, this study found that the micro-class health education model has obvious advantages in improving nurses' program management ability.
(1) Learning interest and learning effect
Nurses under traditional training methods mostly adopt passive learning, lacking learning motivation and poor learning effect. However, nurses in the experimental group can attract nurses' attention and improve their learning interest and participation through micro-class health education mode and micro-video, animation and other forms. In addition, the model has the characteristics of strong pertinence, rich content and various forms, which can meet the needs of different nurses and improve their learning effect.
(2) Ability of health education
Nurses in the experimental group can better carry out health education for patients in practical work through the training of micro-class health education model. This model not only pays

attention to imparting knowledge, but also pays attention to cultivating ability. Through diversified forms and contents, it cultivates nurses' program management ability, communication skills and health education skills. At the same time, the nurses in the experimental group have a higher degree of knowledge of mental health education, which can better pay attention to patients' mental health and improve the overall nursing quality.

Table 1 Comparison of program management ability scores of nurses in experimental group and control group

Group	Nurse program management ability score (out of 100)
Control group	72.4 ±8.2
Experimental group	89.6 ±6.9

Table 2 Comparison of nurses' knowledge of health education between experimental group and control group

Group	Knowledge of health education among nurses (out of 100)
Control group	75.3 ±9.1
Experimental group	92.6 ±7.4

(3) Patient satisfaction

Through the application of micro-class health education model by nurses in the experimental group, more comprehensive and effective health education can be given to patients, which can improve patient satisfaction. At the same time, this model pays attention to communication and interaction with patients, and can better understand patients' needs and problems, thus providing more personalized health education services.

To sum up, through comparative analysis, this study found that the micro-class health education model has significant advantages in improving nurses' program management ability(Table 1 and Table 2), and can also improve nurses' health education ability and patient satisfaction. This model has the characteristics of various forms, rich content and convenient learning, which can provide useful reference for improving the quality of health education in pediatric emergency observation room.

4. Conclusions

The purpose of this study is to explore the effect of micro-class health education model on improving nurses' program management ability. By comparing the scores of nurses' program management ability, health education knowledge and patient satisfaction between the experimental group and the control group, it is found that the micro-class health education model has obvious advantages in improving nurses' program management ability, and can also improve nurses' health education ability and patient satisfaction. First of all, the scores of program management ability of nurses in the experimental group were significantly higher than those in the control group, and there was a statistical difference ($P<0.05$). This shows that the micro-class health education model can effectively improve the program management ability of nurses. Secondly, the nurses in the experimental group have a better grasp of the patients' condition than those in the control group. This may be related to the better use of health education knowledge by nurses in the experimental group and the establishment of better communication and trust with patients. At the same time, the nurses in the experimental group have a high degree of knowledge of mental health education, which is conducive to better paying attention to patients' mental health and improving the overall nursing quality. Finally, through the patient satisfaction survey, it is also found that the health

education services provided by nurses in the experimental group are more comprehensive and effective, which can improve patient satisfaction.

Through comparative analysis, this study found that the micro-class health education model has obvious advantages in improving nurses' program management ability, and can also improve nurses' health education ability and patient satisfaction. This model has the characteristics of various forms, rich content and convenient learning, which can provide useful reference for improving the quality of health education in pediatric emergency observation room.

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