

Application of Datura Notes Teaching Method in Standardized Training of New Nurses in Pediatric Emergency Department

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Abstract: The purpose of this study is to explore the application effect of Datura note teaching method in standardized training of new nurses in pediatric emergency department. By comparing the experimental group and the control group, it is found that the new nurses in the experimental group are significantly higher than those in the control group in theoretical examination scores, operational skills assessment scores and self-evaluation questionnaire scores. These results show that Datura note teaching method can improve the training effect and professional ability of new nurses, and also help to improve their self-evaluation ability and autonomous learning ability. Datura note teaching method summarizes and sorts out the knowledge points of theory and operation skills, which helps new nurses to form a systematic knowledge system, encourages new nurses to think and find problems actively, and improves their understanding and memory ability of theoretical knowledge. Through the application of Datura note teaching method, new nurses can better master the common nursing knowledge and skills in emergency department, improve their practical ability, and thus provide better medical services for patients.

1. Introduction

Pediatric emergency department is a highly tense and busy medical environment, and new nurses often have to face great work pressure and challenges. In order to improve the training effect and professional ability of new nurses, many training methods have been introduced into practical teaching [1]. Datura note teaching method is a method to organize information into meaningful and logically related patterns. It was first put forward by Tony Buzan and widely used in various fields. In the field of medical education, mandala note teaching method mainly summarizes and sorts out scattered knowledge points through nine squares or circles to help students better understand and remember knowledge [2]. As an innovative teaching method, Datura notes teaching method has shown its advantages in many fields [3]. In the implementation of the mandala note teaching method, students need to first determine the learning objectives and classify and summarize the knowledge points around the objectives [4]. Then, students need to fill in the knowledge points in Datura charts such as nine squares or circles according to the logical relationship, so as to better

remember and review [5]. This method can help students to establish clear learning objectives, clarify the relationship between various knowledge points and form a systematic knowledge system.

In the standardized training of new nurses in pediatric emergency department, Datura notes teaching method has important application value. First of all, this method can help new nurses better understand and remember the common nursing knowledge and skills in emergency department. By summarizing and sorting out the knowledge points, new nurses can more clearly grasp the relationship between various knowledge points and form a systematic knowledge system [6]. Secondly, the mandala note teaching method can cultivate the autonomous learning ability of new nurses. In the process of training, new nurses need to actively think and find problems, and solve problems by means of mandala charts. This is helpful to improve the new nurses' autonomous learning ability and problem-solving ability [7]. At the same time, the mandala note teaching method can also help train teachers to improve the teaching effect. Teachers can make personalized teaching plans according to the needs and characteristics of new nurses, and summarize and sort out knowledge points by means of mandala charts, so as to help new nurses better understand and master knowledge [8]. In addition, teachers can also observe the performance of new nurses in the process of making Datura charts, find out the shortcomings of new nurses in time, and give timely guidance and help [9]. The purpose of this study is to explore the application effect of Datura note teaching method in standardized training of new nurses in pediatric emergency department, in order to provide useful reference for optimizing the training methods of new nurses and improving teaching quality.

2. Research methods

2.1. Research object and grouping

In this study, the nurses who participated in the standardized training of new nurses in pediatric emergency department will be selected as the research object. In order to ensure the homogeneity and representativeness of the research object, new nurses are selected, who have completed the training of basic nursing knowledge and skills and have no record of major medical accidents. These standards ensure that the research subjects have the basis to understand and implement standardized training content, while excluding the possibility that personal factors or professional background may affect the training effect.

After determining the subjects, they were divided into two groups according to the time period: the control group and the experimental group. The control group includes new nurses who participated in standardized training from January 2021 to June 2022, and they will learn by traditional standardized training methods. The experimental group is new nurses who participated in standardized training from July 2022 to August 2023, and they will learn by adopting the Datura note-taking teaching method. This grouping method ensures that different training methods are applied to the two groups of subjects in the same time period, so that we can compare and analyze the training effects of the two groups of subjects in the future.

After the research objects and groups are determined, standardized training will be conducted for several months. After the training, the two groups of subjects were given theoretical examination and operational skills examination to evaluate the actual effect of different training methods. At the same time, the subjects will be invited to fill in the self-evaluation questionnaire to understand their feelings and evaluation of their respective training processes.

2.2. Training methods

The control group will receive traditional standardized training, including theoretical teaching,

demonstration of operational skills and clinical practice. In the experimental group, the mandala note teaching method was used for training, and the specific steps were as follows:

(1) Classification and induction of knowledge points: According to the actual needs of pediatric emergency, the relevant nursing knowledge and skills are classified and summarized to form a modular knowledge system. Each module contains core knowledge points, related knowledge points and actual cases.

(2) Set learning objectives: Set clear learning objectives for each module, including different levels of understanding, mastery and application. Learning objectives should be specific and measurable, so that new nurses can define their learning direction.

(3) Making Datura Chart: New nurses need to make Datura Chart containing knowledge points, keywords and logical relationships according to their learning objectives. Datura charts can be made in paper or electronic form, so that new nurses can consult and review at any time.

(4) Knowledge integration and deepening: In the process of making Datura charts, new nurses need to continuously integrate and deepen the knowledge system, sort out the connections between various knowledge points and form a complete knowledge structure.

(5) Practice and reflection: Combined with clinical practice, new nurses need to apply the knowledge and skills they have learned to practical work, and at the same time constantly reflect and summarize and improve their own mandala charts.

2.3. Effect evaluation

Before and after the training, all new nurses were given theoretical examination and operational skills assessment to evaluate their knowledge mastery and application ability. In addition, the self-evaluation questionnaire was used to let the new nurses evaluate their learning effect.

2.4. Data processing and analysis

The collected data will be statistically analyzed, including descriptive statistics and inferential statistics. Descriptive statistics will be used to describe the average and standard deviation of each index. Inferential statistics will be used to compare the differences between groups and analyze the influence of different teaching methods on the training effect.

3. Result analysis and discussion

The results of this study show that the experimental group adopting the mandala note teaching method is superior to the control group in theoretical examination (Table 1), operational skill examination (Table 2) and self-evaluation questionnaire score (Table 3). These results show that Datura note teaching method has obvious advantages in standardized training of new nurses in pediatric emergency department.

Table 1: Comparison of theoretical test scores

Group	Number	Average score	Standard deviation
Control group	30	86.7	4.1
Experimental group	30	94.5	3.2

The data in Table 1 shows that the theoretical test scores of new nurses in the experimental group are significantly higher than those in the control group ($p < 0.05$). This may be because the mandala note teaching method summarizes and sorts out theoretical knowledge, which is helpful for new nurses to form a systematic knowledge system. At the same time, this method also encourages new nurses to think and find problems actively, thus improving their understanding and memory ability

of theoretical knowledge. It is worth noting that the average score of new nurses in the experimental group is higher, but the standard deviation is also larger.

Table 2: Comparison of operational skills assessment results

Group	Number	Average score	Standard deviation
Control group	30	84.8	5.2
Experimental group	30	91.6	4.3

The data in Table 2 shows that the performance of the new nurses in the experimental group is also significantly higher than that in the control group ($p < 0.05$). This may be because the mandala note teaching method summarizes and sorts out the knowledge points of operational skills, so that new nurses can better master various operational skills and their relationships. At the same time, this method also cultivates the autonomous learning ability of new nurses, so that they can constantly improve their operational skills according to actual needs. Similar to the theoretical test results, the average score of new nurses in the experimental group is higher, but the standard deviation is also larger. This may mean that there are some differences in the implementation quality of Datura note teaching method, and some new nurses may not make full use of this method to improve their operational skills.

Table 3: Comparison of self-evaluation questionnaire scores

Group	Number	Average score	Standard deviation
Control group	30	76.3	5.1
Experimental group	30	88.4	4.2

The data in Table 3 shows that the scores of self-evaluation questionnaire of new nurses in the experimental group are significantly higher than those in the control group ($p < 0.05$). This may be because the mandala note teaching method makes the new nurses more clear about their learning goals, so as to better grasp the learning direction. At the same time, this method also encourages new nurses to think and find problems actively, thus improving their ability to evaluate their own learning effect. This result further supports the role of Datura note teaching method in improving the self-evaluation ability of new nurses.

4. Conclusions

This paper mainly studies the application of Datura note teaching method in standardized training of new nurses in pediatric emergency department. By comparing the results of the experimental group and the control group, it is found that the Datura note-taking teaching method has obvious advantages in improving the theoretical test scores, operational skills test scores and self-evaluation questionnaire scores of new nurses. These results show that Datura note teaching method can effectively improve the training effect and professional ability of new nurses, and also help to improve their self-evaluation ability and autonomous learning ability. The research results have important reference value for optimizing the training methods of new nurses and improving the teaching quality. Through the application of Datura note teaching method, new nurses can better master the common nursing knowledge and skills in emergency department, improve their practical ability, and thus provide better medical services for patients. Through the statistical analysis of the data of the experimental group and the control group, the actual effect of mandala note-taking teaching method in standardized training of new nurses in pediatric emergency department can be more accurately evaluated.

Future research can further explore how to use the mandala note teaching method to carry out personalized teaching for new nurses with different learning styles and needs, so as to further

improve teaching quality. At the same time, it is necessary to evaluate the ability of new nurses to apply the knowledge and skills they have learned in practical work in order to further improve the teaching methods.

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