

Application of Prospective Nursing in Pediatric Neurology Rehabilitation Nursing

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Abstract: In the application of pediatric neurology rehabilitation nursing, the conventional nursing method has some shortcomings, such as weak ability of forecasting the changes of children's condition and long time to forecast the changes of children's psychological needs. Therefore, the application of prospective nursing in pediatric neurology rehabilitation nursing is put forward. Relying on prospective nursing, a disease early warning mechanism is constructed. According to the disease early warning mechanism to judge the changes of children's condition, so as to realize the application of forecasting the changes of children's condition in rehabilitation nursing. Based on the combination of prospective nursing and patient psychology, a reference system for the changes of children's psychological needs is built to judge the changes of children's psychological needs. Moreover, the application of forecasting the changes of children's psychological needs is realized. The experimental data show that the proposed application of prospective nursing in pediatric neurology rehabilitation nursing is 45.6% higher than that of the conventional nursing in forecasting the changes of children's conditions, and 70% seconds shorter than that of the conventional nursing in forecasting the changes of children's psychological needs. It is suitable for the application of pediatric neurology rehabilitation nursing.

Keywords: Conventional nursing methods; Pediatric neurology; Psychological needs; Prospective nursing; Rehabilitation nursing; Condition changes

1. Introduction

With the development of society, the improvement of people's civilization, and the rapid development of scientific technology and medicine, the requirements for hospital nursing service are also increasing. The work of nurses is becoming more and more important. The conventional nursing methods can not meet the needs of patients [1]. In the application of pediatric neurology rehabilitation nursing, the conventional nursing method has some shortcomings, such as weak ability of forecasting the changes of children's condition and long time to forecast the changes of children's psychological needs [2]. Therefore, the application of prospective nursing in pediatric neurology rehabilitation nursing is put forward. Relying on prospective nursing, a disease early warning mechanism is constructed. According to the disease early warning mechanism to judge the changes of children's condition, so as to realize the application of forecasting the changes of children's condition in rehabilitation nursing. Based on the combination of prospective nursing and patient psychology, a reference system for the changes of children's psychological needs is built to judge the changes of children's psychological needs. Moreover, the application of forecasting the changes of children's psy-

chological needs is realized. In order to ensure the effectiveness of the proposed prospective nursing in pediatric neurology rehabilitation nursing, the comparative simulation experiment is carried out to compare the ability of forecasting the changes of children's condition and the time of forecasting the changes of children's psychological needs. The experimental data show that the proposed application of prospective nursing in pediatric neurology rehabilitation nursing is relatively highly effective.

2. Application of Prospective Nursing in Pediatric Neurology Rehabilitation Nursing for Forecasting the Changes of Children's Condition

2.1. Relying on Prospective Nursing to Establish a Disease Early Warning Mechanism

Prospective nursing refers to the ability of nurses to forecast the changes of patients' psychological and behavioral patterns. To realize the application of prospective nursing in the neurology rehabilitation nursing for forecasting the changes of children's condition, the prospective nursing to build a disease early warning mechanism should be relied on [3].

With the implementation of the Regulations on the Treatment of Medical Accidents, medical care is taking more and more risks. The nursing work of contacting patients most closely has many dangerous factors. How to strengthen nursing risk management, ensure nursing safety, discover nursing risk hidden dangers in time and reduce nursing risk coefficient that are challenges faced by nurses nowadays. The implementation of disease early warning management system and strict execution of the system can significantly reduce the occurrence of nursing risks. It is of great significance for eliminating hidden dangers of nursing safety, controlling and avoiding nursing risks to the greatest extent [4]. The specific methods are described as follows:

Based on the prospective nursing, the disease early warning mechanism is established. The disease early warning event reporting system (including the definitions of disease early warning and disease early warning events as well as the scope, responsibilities, contents, levels, reports, treatment, and rewards and punishments of disease early warning) and the process of disease early warning event processing and reporting are formulated.

Definition of disease early warning refers to the nursing work to early warn and actively interpose the observed disease changes that may cause poor prognosis, possible nursing complications or potential nursing safety hazards incidents.

Content of disease early warning is divided into disease early warning and daily event early warning. Disease early warning refers to disease development, disease changes that may cause poor prognosis, "critical" laboratory value early warning, and nursing complications early warning, etc. Daily event early warning refers to the potential nursing safety hazards caused by non-disease factors encountered in daily nursing work, such as patients going out, unsatisfactory treatment effect, and the emergence of disputes, etc [5].

Disease early warning level is divided into general early warning and emergency early warning. General early warning refers to the daily event early warning and disease early warning that may cause poor prognosis or medical disputes if adverse events encountered in clinical nursing work are not handled in time. Emergency early warning refers to the daily event early warning and disease early warning that may threaten patients' lives or cause medical disputes if adverse events encountered in clinical nursing work are not handled in time. The general early warning events that cannot still be solved after coordination are also included. The structure diagram of the disease warning mechanism is shown in Figure 1.

Prospective nursing service refers to the nurse's ability of forecasting the patients' psychology or some changes of patients' behavior. Through understanding the patients' real thoughts and communicating with them, certain nursing service plan can be carried out. Prospective nursing

service can better improve the quality of nursing service for patients [6].

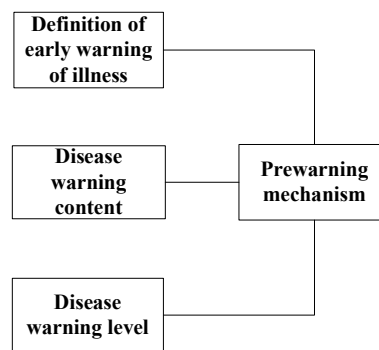


Figure 1. Structure diagram of disease early warning mechanism

2.2. Judging the Changes of Children's Condition From the Disease Early Warning Mechanism

The Department of Nursing will distribute the information related to nursing early warning to each department. Head nurse in each department is organized to learn nursing early warning knowledge at first. Then, the head nurse organizes the general nursing staff to learn. In-hospital early warning sharing and nursing early warning small lectures are carried out, so that each nurse can establish a positive and correct awareness of nursing early warning. They can be aware that nursing risk has both objective side and controllable side. The subjective initiative should be given into full play and the risks should be avoided and controlled to the greatest extent [7].

Nursing risk identification is the basis of nursing risk management. To identify nursing risk early, nurses need to actively mobilize their enthusiasm to participate in the prevention and monitoring of nursing risk. On the basis that the general nursing staff have learned the related knowledge of hospital-level nursing early warning, the head nurse of each department gathers the relative nurses to discuss, collect the existing and potential nursing risk information, and work out the common nursing early warning and treatment process in combination with the past nursing disputes and lessons. For example, pediatric neurology department has formulated nursing warning and treatment process for nursing negligence, hypoglycemic or hypoglycemic reactions, shortage of important medicines, patients falling down or falling into bed, etc [8].

In the implementation of nursing early warning system, pediatric neurology department pays attention to four key links: key system, key patients, key period and key personnel supervision. For example, nurses supervise whether the hygienist wet mop the floor in time to place a "caution wet floor" warning sign every day. From 5:30 to 6:30 a.m. a day, nurses strengthen visiting wards and assisting patients in life nursing to prevent falls. Every

morning conference after the shift, the nurses in the department discuss the causes of early warning and whether the preventive measures have been changed. Early warning patients are transferred by each shift. In this way, the general nurses attach great importance to nursing early warning. Monitoring is strengthened and nursing early warning system is constantly improved. Our department focuses on the discussion once a quarter, requesting each nurse to give advice on the results of early warning monitoring. Then, they summarize and analyze whether the original nursing early warning and processing process needs to be improved. Whether a new nursing early warning and processing process needs to be formulated is also taken into consideration.

Processing early warning means that establishing information network for our hospital's laboratory emergency value reporting system. The laboratory will report the "emergency" laboratory value to the computer reporting department immediately. Nurses will report to the doctor within 5 minutes after receiving the report. Our hospital designs fall risk factor score and Braden Scale score in the hospital nursing evaluation form, asking nurses to grade each hospital patient. If the fall risk factor score > 4 points, nurses on duty hang a "guard against falling" card at the bedside of the patient, make fall prevention propaganda, and dynamically assess until the fall risk factor score < 4 points or patients are discharged. The

score < 12 points should be reported to the nursing department. The nursing specialists guide at the bedside. The clinical nurses take corresponding measures. The shift handover is recorded and the dynamic evaluation is made until the patient is discharged from hospital [9].

General early warning parties report to the chief nurse or superior nurse. After examination and determination, the chief nurse or superior nurse informs each nurse of the department of early warning reasons and preventive measures, and inserts a blue early warning sign on the patient list to start the general early warning.

Emergency early warning parties record the occurrence and treatment of the disease in detail on the nursing records. The head nurse of the department first reports by telephone within 4 hours, then reports to the nursing department in written form. The nursing department organizes experts to intervene within 2 hours after receiving the report.

After the early warning of nursing is lifted, the chief nurse or superior nurse removes the early warning signs in time. For irreversible medical alarm events, which eventually develop into safe medical alarm events, the relevant departments report to the quality improvement department in time, and then deal with them according to the processing of medical alarm event. The flow chart of disease early warning event report processing is shown in Figure 2

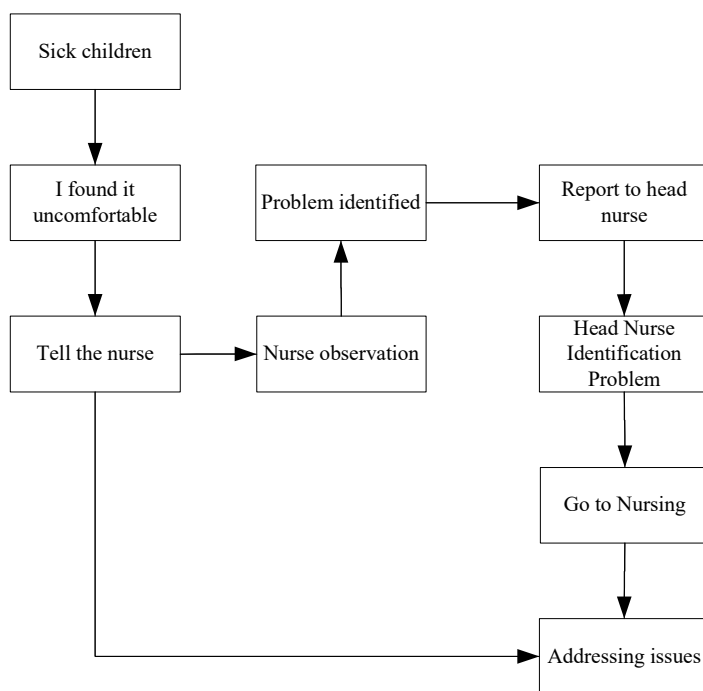


Figure 2. Flow chart of disease early warning event report processing

Nursing staff should pay attention to their professional accomplishment, continue to learn, consolidate and

strengthen their professional knowledge. Through contacting with patients, a set of methods suitable for our-

selves and communicating with patients should be constantly explored to serve patients wholeheartedly, make our society more and more harmonious, and make more people have a healthier body.

3. Application of Prospective Nursing in Neurological Rehabilitation Nursing for Forecasting the Changes of Children's Psychological Needs

3.1. Relying on the Combination of Prospective Nursing and Patient Psychology to Establish a Reference System for the Changes of Children's Psychological Needs

Prospective nursing refers to nurse's ability of forecasting and accurately understanding the changes of patients' psychological and behavioral patterns in the process of nursing. To realize the application of prospective nursing in neurological rehabilitation nursing for forecasting the changes of children's psychological needs, the combination of prospective nursing and patient psychology should be relied on to establish the reference system for the changes of children's psychological needs.

Forecasting in prospective nursing requires nurses to forecast psychological needs. Nurses are required to explain to patients some safety assurance in the process of nursing and some things that patients need to bear. According to the knowledge and rich experience, nurses should have a certain degree of foresight of the pain that a certain step will bring to patients, so as to explain to patients. They can use their own experience to provide patients with better nursing work. In the process of nursing, nurses should well forecast the psychological state of patients and better meet the needs of patients [10].

It is a highly professional and demanding task to establish a pyramid-like reference system for the changes of children's psychological needs. Establishing a high-quality team of mental health counseling doctors and nurses, training the relevant medical staff in patients' psychological knowledge and improving their professional skills are prerequisites for effectively forecasting the changes of children's psychological needs. It is also the key to ensure children's mental health education. However, it is difficult to meet the needs of psychological observation in pediatric neurology rehabilitation nursing without corresponding specialized agencies as well as a group of professional, experienced and helpful full-time teams. Try to establish a pyramid-like observation system for children's psychological health, that is, a three-level reference system for children's psychological needs change, which consists of volunteers, patients' psychological needs centers (including psychological counseling and counseling stations), and observation groups for children's psychological needs set up by hospitals.

Firstly, at the top of the pyramid is the observation group of children's psychological needs. It consists of the patients' psychological need center. It is headed by the director of the pediatric neurology rehabilitation nursing center. The members of the group include nurses, head nurses, nursing department, volunteer team of children's psychological needs and other functional participants. They are mainly responsible for the overall planning of children's psychological needs observation work, especially in dealing with the relationship between psychological guidance and counseling. The focus should be put on the majority of normal children. For a small number of children with special psychological needs, the corresponding screening and intervention mechanisms should be planned. They are responsible for directing and coordinating the work of various functional departments when they deal with changes of children's psychological needs.

Secondly, the psychological need center (including psychological counseling and guidance stations) in the middle layer of the pyramid is mainly composed of full-time and part-time counseling teachers, who are responsible for the implementation of specific work. We should strengthen the construction of the team of nursing staff in the specialty of psychological counseling and guidance for children. That is, the middle layer of the pyramid includes professional psychological counselors and the construction of psychological counseling stations in various departments. Hospitals should attach importance to the allocation of professional nurses to ensure that children can get psychological counseling and guidance services nearby.

Finally, the volunteer team for the psychological needs of children at the bottom of the pyramid can be composed of psychological associations set up in the society or psychological departments recruited publicly within the scope of hospital and society. The activities are carried out through lectures, salons and other forms. Using the role of children's psychological needs volunteer team to create a comfortable, warm and friendly environment for pediatric neurology rehabilitation nursing. Letting the reference system of changes of children's psychology permeate into the children's rehabilitation life, which not only can improve the quality of nursing, but also can improve the success rate of children's rehabilitation and promote children's body and mind harmony [11].

The reference system of the changes of children's psychological needs is an important part of the application of prospective nursing in pediatric neurology rehabilitation nursing, because the establishment of this system lays a good foundation for judging and forecasting the changes of children's psychological needs. It can help us better complete the application of prospective nursing in pediatric neurology rehabilitation nursing.

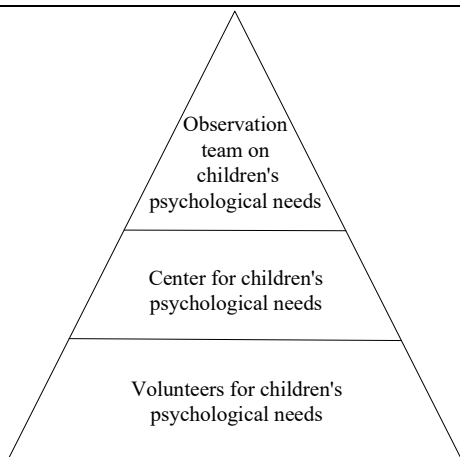


Figure 3. Reference system of the changes of children's psychological needs

3.2. Judgment of the changes of children's psychological needs

According to the reference system of the changes of children's psychological needs, the judgment and forecasting of the changes of children's psychological needs can be realized. Establishing trust and harmonious doctor-nurse-patient relationship so as to better judge and forecast the changes of children's psychological needs. In the process of nursing, the nurses who forecast children's psychological needs can forecast some helpful things for the patients through some analysis and calculation programs. Collecting some helpful information for the beginning of the day-to-day illness, the period of diagnosis, the period of treatment and the period of rehabilitation, which can better let the patient get some comfort in mind.

The changes of children's psychological needs mainly include the following factors: needing respect, needing acceptance and care, needing information, and needing security. We can use the formula to show the relationship.

$$S = a1 + b1 + c1 \tag{1}$$

In this formula, *S* represents needing respect, *a1* represents needing acceptance and care, *b1* represents needing information and *c1* represents needing security.

Children's psychological changes: changes in cognitive function, emotional activity as well as personality, will and behavior. We can use the formula to show the relationship.

$$S1 = a2 + b2 + c2 \tag{2}$$

In this formula, *S1* represents children's psychological changes, *a2* represents the changes of cognitive function, *b2* represents the changes of emotional activities, and *c2* represents the changes of personality, will and behavior.

Children's psychological problems of children: anxiety, fear and depression. We can use formula to show the relationship.

$$S2 = a3 + b3 + c3 \tag{3}$$

In this formula, *S2* represents children's psychological problems, *a3* represents anxiety, *b3* represents fear and *c3* represents depression.

$$M = S + S1 + S2 \tag{4}$$

In this formula, *M* represents the change of children's psychological needs, *S* represents needing respect, *S1* represents the changes of children's psychological needs and *S2* represents children's psychological problems. The flow chart of the formula is shown in Figure 4.

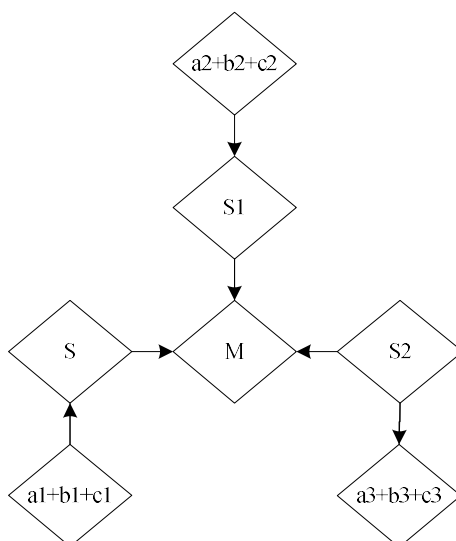


Figure 4. Formula flow chart of forecasting the changes of children's psychological needs

The nurses who forecast the changes of children’s psychological needs should explain to the patients some safety assurance in the process of nursing and some things that need bearing. According to our knowledge and rich experience, nurses should have a certain degree of foresight of the pain that a certain step will bring to patients, so as to explain to patients, and use their own experience to provide patients with better nursing work. In the process of nursing, nurses should well forecast the psychological state of patients and better meet the needs of patients. Prospective nursing is a very important work in the high quality nursing service of pediatric neurology ward. In the nursing process, nurses not only pay attention to their professional quality, but also constantly study, consolidate and strengthen their professional knowledge. Through contacting with patients, we constantly explore a set of methods suitable for ourselves and communicating with patients, serve patients wholeheartedly, satisfy patients and their families, make our society more and more harmonious, and make more people have a healthier body. Prospective nursing has a good effect in the high quality nursing service of pediatric neurology ward. It should be practiced more and better for the health of pediatric neurology patients.

4. Experimental Results and Analysis

In order to ensure the effectiveness of prospective nursing in pediatric neurology rehabilitation nursing, the simulation experiment is carried out. In the course of the experiment, different nursing methods are used as the subjects to compare the ability of forecasting the changes of children’s condition and simulate the time of forecasting the changes of children’s psychological needs. The application of prospective nursing in pediatric neurology rehabilitation nursing is simulated. In order to ensure the validity of the experiment, the conventional nursing method is used as the comparative object to compare the two simulation test results, and the test data are presented in the same data chart.

4.1. Comparisons of ability of forecasting the changes of children’s condition

During the experiment, two different nursing methods are used to work in a simulated environment, and the ability of forecasting the changes of children’s condition is analyzed. The comparison results of the experimental are shown in Figure 5.

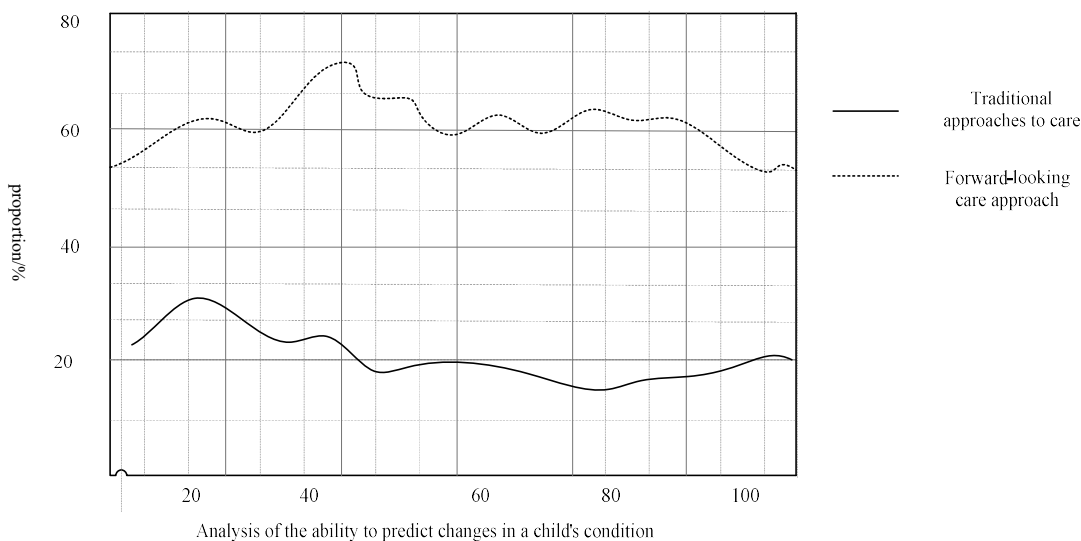


Figure 5. Comparison chart of ability of forecasting the changes of children’s condition

Compared with the conventional nursing method, the proposed prospective nursing method can forecast the changes of children’s condition. The ability of prospective nursing method is 45.6% higher than the conventional nursing method in forecasting the changes of children’s condition.

4.2. Time comparison of forecasting changes of children’s psychological needs

During the experiment, two different nursing methods are used to work in the simulated environment. The change time of children’s psychological needs is analyzed. The experimental results are compared as shown in Table 1. Through arithmetic treatment of the proposed prospective nursing method and the conventional nursing method to forecast the change time of children’s psychological needs, it was concluded that the average time consumed by the conventional nursing method to forecast the change time of children’s psychological needs is 76.8

hours. The average time consumed by the proposed prospective nursing method to forecast the change time of children’s psychological needs is 23 hours. The proposed prospective nursing method can shorten 70% of

the time for forecasting the change of children’s psychological needs compared with the conventional nursing method.

Table 1. Consumption time comparative table for forecasting changes of children’s psychological needs

| Case type number | Prospective care consumption time (h) | Regular care consumption time (h) |
|------------------|---------------------------------------|-----------------------------------|
| 1 | 32 | 60.8 |
| 2 | 24 | 70 |
| 3 | 20 | 79 |
| 4 | 18 | 80 |
| 5 | 20 | 81 |
| 6 | 24 | 90 |

5. Conclusion

This paper presents the application of prospective nursing in pediatric neurology rehabilitation nursing. Depending on the prospective nursing to build a disease early warning mechanism, and judging the change of children’s condition according to the disease early warning mechanism, the application of prospective nursing to forecast the change of children’s condition in the rehabilitation nursing of neurology department can be completed. Relying on the combination of prospective nursing and patient psychology, a reference system for the change of children’s psychological needs can be established. According to the reference system of children’s psychological needs change, the changes of children’s psychological needs can be judged and forecasted. The application of prospective nursing in pediatric neurology rehabilitation nursing can be realized It is more suitable for the application of medical staff in pediatric neurology rehabilitation nursing in the new era. It can improve the working efficiency of medical staff and promote the rehabilitation of patients. It is worth learning and promoting by medical staff in hospitals.

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