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Analysis of the Effect of Comprehensive Nursing Training on Postoperative Rehabilitation of Children With Tumor

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Abstract: To explore the effect of comprehensive nursing training on postoperative rehabilitation of children with tumors. Methods: Sixty children with tumor surgery were selected as subjects. They were randomly divided into observation group and control group, 30 cases each. The control group received routine nursing care for the sick children. The observation group gave comprehensive nursing measures on the basis of routine nursing. The pain scores, hospitalization time and SAS and HAMA scores of the two groups were compared after 1, 24, 48 hours. Results: The SAS scores at 1, 24, and 48 h after surgery were (3.6 ± 0.8), (2.2 ± 0.7), and (1.9 ± 0.5), respectively. They were significantly lower than the control group (4.7±1.0), (4.9± 1.3), and (5.3±0.6), and the difference was statistically significant (P<0.01). The postoperative hospital stay was (6.5±1.2) days in the observation group, which was significantly shorter than that in the control group (8.6±1.7) days. The difference was statistically significant (P<0.01). After nursing, the SAS and HAMA scores of the observation group were (45.18±3.06) and (14.12±2.03), respectively, which were significantly lower than those of the control group (51.34±3.24) and (17.45±2.82). The difference was statistically significant (P<0.01). Conclusion: Targeted comprehensive nursing intervention for children's tumors can effectively relieve postoperative pain and anxiety in children with cancer, promote rehabilitation, shorten hospitalization time, and is worthy of promotion.

Keywords: Comprehensive nursing training; Childhood tumors; Postoperative rehabilitation;

1. Introduction

Tumor is a common disease in China, and the incidence of women and children is relatively high [1]. The main symptoms of the tumor are severe headache, which is easy to be complicated by hydrocephalus. As a result, the head enlarges and the walking squats down. Some patients still have hoarseness and difficulty in swallowing and difficulty in breathing. The main clinical treatment is surgical treatment. Most patients with pain after surgery have a bad mood, which is not conducive to postoperative recovery. In the process of improving surgical skills, patients should be relieved of anxiety and postoperative pain and postoperative pain and other nursing measures [2]. The hospital has achieved good application results for the comprehensive nursing intervention service for post-operative care of children with cancer. The detailed report is as follows.

2. Materials and Methods

2.1. Normal information

Sixty children who underwent tumor treatment in our hospital were enrolled in the study. They were randomly divided into observation group and control group, 30 cases, including 13 males and 17 females. The age ranged from 8 to 15 years, with an average age of 10.5 years. 17 cases of nodular gland tumors, 7 cases of glandular sac tumors, and 6 cases of thyroid tumors. The occupations of most sick children are students, the cultural background is mostly primary school and junior high school, the control group is 12 males and 18 females. The age is 10-17 years old, the average age is 12 years old. 18 cases of nodular adenocarcinoma, 6 cases of glandular sac tumor, and 6 cases of thyroid tumor. The cultural quality of the sick children was the same as that of the observation group. There was no significant difference in the basic data between the two groups (P>0.05), which was comparable.

2.2. Nursing intervention

The control group used the routine nursing mode for the surgical rehabilitation of children with tumors, and closely observed the basic vital signs such as respiratory rhythm [3], respiratory rate, pulse, body temperature and blood pressure. Nurses should patrol the changes of children's patients at any time, and record the patient's neck surgery incision oozing and swelling, follow the

doctor's advice to guide their postoperative medication and drainage tube care.

Patients in the observation group were given comprehensive nursing interventions based on routine nursing during the rehabilitation period of the control group [4]. The specific nursing measures are as follows:

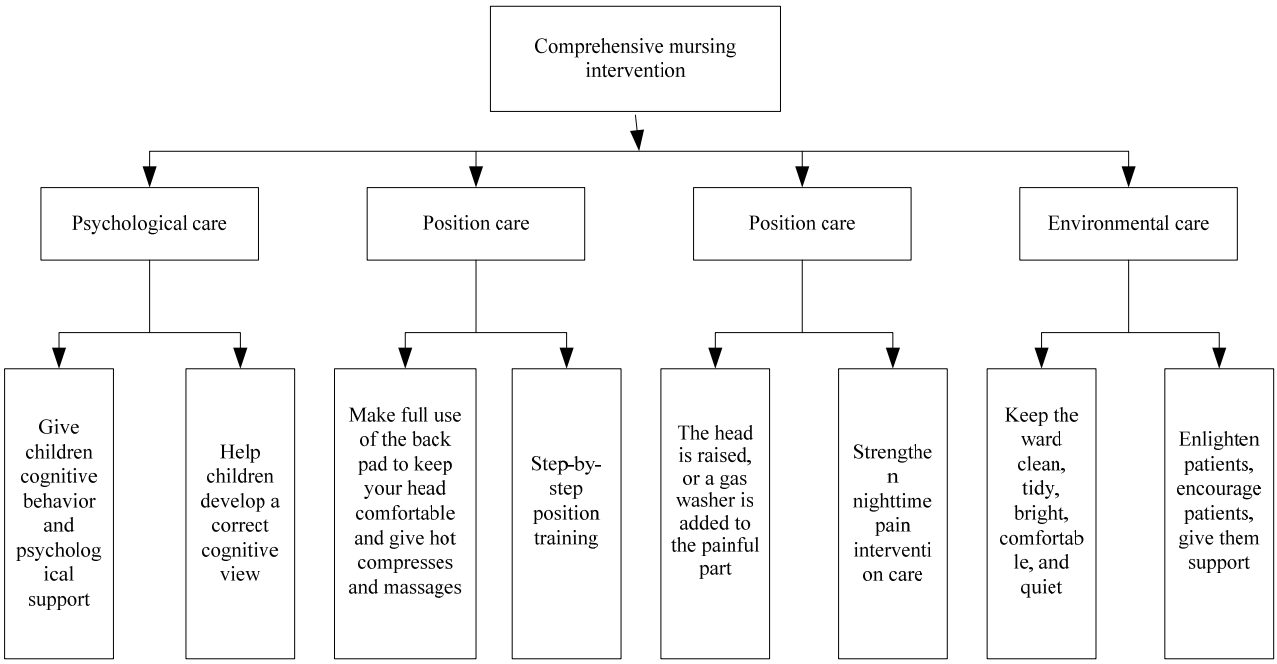

Figure 1. Comprehensive nursing interventions

The specific implementation process is as follows:

Psychological care: Tumor resection itself as a source of stress can cause a certain degree of negative emotions in children, and these adverse emotions seriously affect the body's tolerance to surgical pain and pain valves. Nursing staff should give cognitive behavior and psychological support to children patients to effectively alleviate their anxiety [5]. The nursing staff should explain the basic knowledge of the tumor disease and the knowledge of the surgical treatment to the child patient, and carry out health education to help the child patient establish a correct cognitive view and correctly treat the disease problem. Nursing staff should carefully listen to the complaints of children and patients, and provide targeted psychological counseling after understanding the causes of patients' psychological anxiety, establish a good relationship between them and obtain patient trust [6]. The nursing staff informed the patient that postoperative pain is a normal phenomenon, which is the normal protective stress response after the body is stimulated. At the same time, the perception of the degree of pain is closely related to its subjective feelings. Such pain is difficult to completely eliminate in the short term, and patients must recognize and accept the facts.

Position care: Nursing staff guide children to properly perform posture training, make full use of the back cushion to maintain head comfort, and give hot compresses and massages to help them turn over regularly. Patients who are under-aged and children with cervical problems can raise their heads appropriately [7]. Nursing staff regularly instructs patients to perform step-by-step position training to minimize pain in the head, neck, lower back, and surgical incision. Because the patient group is a child, in the process of positional care, it is necessary to pay attention to the appropriate way of nursing and strength. The specific nursing method is shown in Figure 2.

Pain care: Nursing staff should ask patients for postoperative pain, give targeted nursing intervention, and avoid excessive neck activity in the early postoperative period. The patient should take a high head cushion after surgery, or nursing staff add a gas gasket to the painful part to reduce the pain, and massage the patient appropriately to relieve the pain. Nighttime pain intervention care should be strengthened, when the patient's sleep is not good at night, subjective feelings of pain will increase, and if necessary, sedatives.

Environmental care: keep the ward clean, tidy, bright, comfortable and quiet. Nursing staff can add cartoon characters to the wall and door frame [8], so that children can feel the care and warmth and increase the fun. Nursing staff guide children to actively complain, let them release their inner pressure, try to enlighten patients, ac-

tively encourage patients, and give them psychological support.

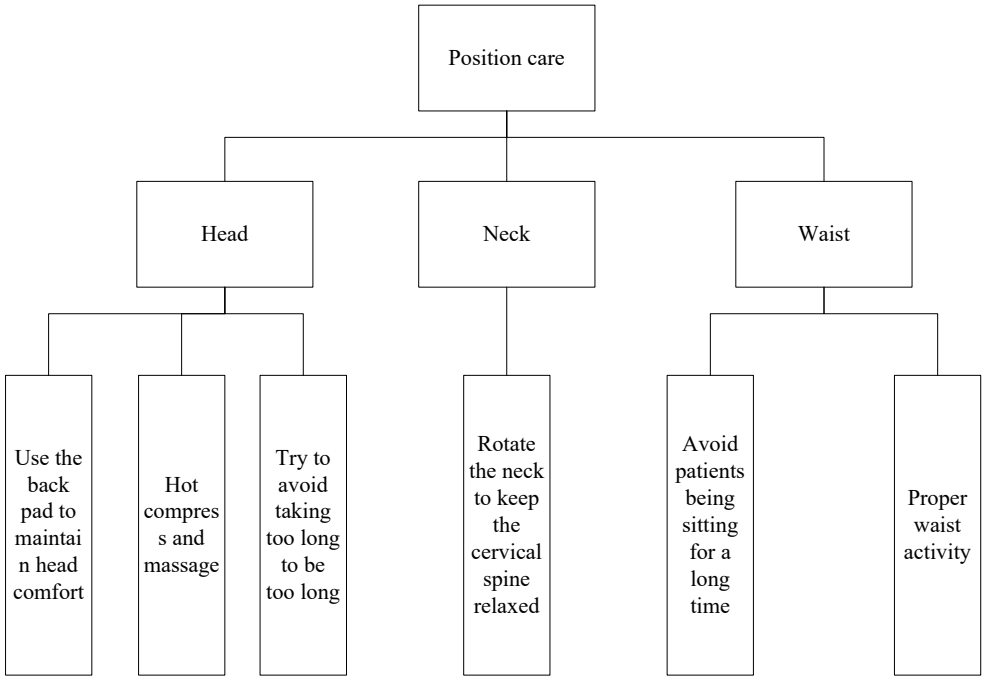

Figure 2. Method of position care

2.3. Evaluation index

Postoperative pain: The pain of children was scored 48h after surgery. VRS-5 (5-point oral grading method) was selected to evaluate the pain of head, neck, waist, back and swallowing. Specifically, it is divided into 6 levels, no pain is 0, and the tolerable pain is 1 [9], affecting normal sleep pain is 2, severe pain that severely interferes with sleep is grade 3, severe pain that severely interferes with sleep is grade 4, and unbearable pain is grade 5.

SAS (Visual Simulated Pain Assessment Method): Patients were also assessed for pain at 1, 24, and 48 h after surgery, and were classified into 0 to 10 grades. The higher the level, the more severe the pain, including less than 3 points for mild pain, 3 to 6 for moderate pain [10], and more than 6 points for severe pain. The psychological state of patients before and after nursing was evaluated using the Self-rating Anxiety Scale (SAS) and the Hamilton Anxiety Scale (HAMA).

2.4. Statistical processing

SPSS17.0 software was used for data processing, and the measurement data was represented by $\left(\bar{x} \pm s\right)$. T test was used for inter-group and intra-group comparison, and x^2 test was used for inter-group comparison of counting data. P<0.05 was considered statistically significant.

3. Experimental Impact Analysis

3.1. The effect of pain on children

Among the children in the observation group, 18 cases (60.00%) were evaluated with VRS-5 level 0, which was significantly higher than 4 cases (13.33%) of the control group. The difference was statistically significant (P<0.05). The evaluation results are shown in Table 1.

Table 1. Comparison of VRS-5 Evaluation Between Two Groups of Children

Groups	Level 0	Level 1	Level 2	Level 3 or higher
Observation group(n=30)	18 (60.00)	6 (20.00)	3 (10.00)	3 (10.00)
Control group(n=30)	4 (13.33)	9 (30.00)	9 (30.00)	8 (26.67)
x^2 **value**	14.0669	0.8000	3.7500	2.7829
P value	<0.01	>0.05	>0.05	>0.05

According to the analysis of Table 1, it is known that patients with severe pain after surgery have relied on analgesic drugs, but the duration of analgesic drugs is limited, and there are toxic side effects. Comprehensive nursing intervention as a non-drug-dependent effective method for relieving postoperative pain is easily adopted by hospitals [13]. Comprehensive nursing intervention provides comprehensive care for patients with postoperative incision, and guides children to understand the traumatic and postoperative pain of the operation itself. After comprehensive communication with the patient, nursing staff should master the recovery of the patient's condition,

and maintain the patient's comfortable position through positional care, which is conducive to postoperative rehabilitation. The results of this study confirmed that the postoperative pain score of the observation group was significantly lower than that of the control group (P<0.01), and the hospitalization time was also significantly shorter than the control group (P<0.01). At the same time, the patients' anxiety scores were significantly relieved after comprehensive nursing intervention. It can be seen that targeted psychological intervention can improve the patient's psychological state and provide assistance for subsequent treatment recovery. In summary, the application of comprehensive nursing intervention for patients with thyroid tumors can comprehensively improve the recovery rate of patients and relieve postoperative pain. It can also promote physical rehabilitation, shorten hospital stay, improve patient quality of life, etc., and it is worth promoting.

3.2. Comparison of VAS scores and hospitalization time between the two groups

The VAS scores of the observation group were significantly lower than those of the control group at 1, 24, 48h after operation (P<0.01). The postoperative hospital stay was (6.5±1.2)d in the observation group, which was significantly shorter than that in the control group (8.6±1.7) d. The difference was statistically significant (P<0.01). The VAS scores and hospitalization time of the two groups of children were compared as shown in Table 2.

Table 2. Comparison of VAS Scores and Hospital Stays Between the Two Groups

Group	VAS score			Hospital stay (d)
	Postoperative 1h	Postoperative 24h	Postoperative 48h	
Observation group(n=30)	3.6 ± 0.8	2.2 ± 0.7	1.9 ± 0.5	6.5 ± 1.2
Control group(n=30)	4.7 ± 1.0	4.9 ± 1.3	5.3 ± 0.6	8.6 ± 1.7
T value	4.7047	10.0160	23.8438	505276
P value	<0.01	<0.01	<0.01	<0.01

According to the analysis of Table 3, the main factors affecting the healthy growth of children are disease factors and non-disease factors, in which it is an important factor to alleviate the pain of patients and improve their mental state. Therefore, while improving surgical skills, strengthening comprehensive nursing intervention is the direction to improve efficacy. The study found that comprehensive nursing interventions can improve postoperative pain and alleviate negative emotions. It can also avoid strong pain and cause reflex inhibition of gastrointestinal function, blood pressure, abnormal heart rhythm, etc., thus promoting postoperative rehabilitation and shortening hospital stay.

4. Discussion of Experimental Results

Tumors have become an important cause of death in children, with higher incidence and complications, and higher mortality [11]. Because of the obvious symptoms, children can be found and treated by parents in time. Tumor diseases, especially at this stage in China, have an increasing trend in cancer patients, which needs to be highly valued [12]. Tumor resection is prone to surgical complications such as hoarseness and low calcium. The scope of surgical resection should be judged according to the condition, age and medical technical conditions of the child patient, and must conform to the principle of tumor resection. At the same time, it is necessary to keep good nerves and other functions to improve the quality of life and immunity of children.

The training of comprehensive nursing mode comes from practice, we should research the phenomenon in the practice of child patient care, find the law from it, and form a set of child care theory. Nursing theory guides nursing practice. For example, the application of nursing theory can help nurses discover problems in the process of child care, and guide nurses to take effective nursing measures to effectively solve nursing problems. At the same time, the practice of nursing continues to validate the theory. Nursing theory must be validated and applied in nursing practice in order to continue to develop. Comprehensive nursing training and education nursing training provide guiding ideology and theoretical basis for nursing education. Nursing colleges can choose different nursing theories as the purpose of running a school, conduct batch teaching for people of different ages, formulate staged and targeted teaching plans, determine curriculum settings, teaching content and teaching methods to guide teaching behaviors. Comprehensive nursing training has been developed on the basis of nursing research. In recent years, the academic atmosphere of nursing research is relatively strong, so the development of comprehensive nursing training is faster. At the same time, nursing research needs comprehensive nursing training as a theoretical basis, to select topics and determine the preferences of children patients to analyze the research results. Theory-based research results play an important role in the development of comprehensive nursing training [15]. Nursing theory and management care managers develop management objectives based on nursing theory, organize staffing and quality inspections, which can make nursing management more scientific and more conducive to improving the quality of nursing practice. At this stage, comprehensive nursing training in China is in a period of development. At present, there is no comprehensive nursing training that can fully describe, explain, predict and

control various nursing phenomena and their relationship. Instead, the nursing phenomenon is explained from the perspective of the respective nursing population. In addition, the comprehensive nursing training comes from the developed countries in the West. Due to the national conditions and restrictions, there is a certain difficulty in understanding the comprehensive nursing training. Therefore, the application should be applied flexibly in combination with specific situations. At the same time, in the practice of nursing care should be taken to develop a comprehensive nursing training model suitable for China's national conditions.

5. Conclusion

In this paper, the effects of comprehensive nursing training on postoperative rehabilitation of children with tumors were analyzed. 60 children who underwent tumor treatment in our hospital were randomly divided into experimental group and control group. The control group was given routine care to the sick children. The observation group gave comprehensive nursing measures on the basis of routine nursing, and compared the satisfaction degree and rehabilitation speed of the two groups of patients after the tumor rehabilitation process. The results showed that targeted comprehensive nursing intervention for children's tumors effectively relieved postoperative pain and anxiety in children with cancer, and promoted the rapid recovery of children. It is hoped that the research in this paper can provide theoretical basis and reference for the method of comprehensive nursing training in China.

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