

Effect of the Application of Health Management in Nursing on Osteoarthropathy

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Abstract: *Objective:* To explore the effect of the application of health management in nursing on osteoarthropathy. *Methods:* Fifty patients with osteoarthropathy in our hospital were randomly selected and recruited for the current study from January 2018 to January 2020. They were divided into group A and group B according to the random number table method. group A (25 cases) received routine nursing, while group B (25 cases) received health management in nursing on the basis of the treatment given to group A. Joint function index, quality of life and nursing satisfaction were compared between the two groups. *Results:* The index of joint function in group B was higher than that in group A, the quality of life in group B was higher than that in group A, and the nursing satisfaction in group B was higher than that in group A ($P < 0.05$). *Conclusion:* For patients with osteoarthropathy, the application of health management can effectively improve joint function and improve the quality of life. The effect is ideal and the method is worthy of wide application.

Keywords: Osteoarthropathy; Health management; Nursing; Application effect

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1. Introduction

Osteoarthritis is a common degenerative disease, which is mainly caused by factors such as aging, overweight, joint strain, trauma, congenital abnormalities, deformity and so on, leading to degeneration and damage of articular cartilage, reactive hyperplasia of joint edge and subchondral bone, pain, tenderness, joint stiffness, joint swelling, limited activity, deformity and muscle atrophy^[1]. This disorder seriously affects the daily life of patients. Studies have shown that^[2] for patients with osteoarthritis, the application of health management can effectively improve the clinical symptoms of patients, and promote the recovery of joint function, thereby achieving ideal nursing effect. The report is as follows.

2. Materials and methods

2.1. General information

From January 2018 to January 2020, 50 patients with osteoarthropathy treated in our hospital were randomly selected for this study. According to the random number table, 50 patients were divided into group A and group B. There were 25 patients in group A, including 13 males and 12 females, aged from 60 to 82 years, with an average age of 72.17 ± 6.56 years. There were 25 cases in group B, including 14 males and 11 females, aged from 60 to 83 years, with an average age of 73.21 ± 6.61 years old. There was no difference between groups ($P > 0.05$).

Inclusion criteria are as follows: (i) patients that was diagnosed as osteoarthritis; (ii) patients without communication disorder, cognitive disorder and mental history; and (iii) patients and their families that

have been explained to about the overview of the study and have signed informed consent forms.

Exclusion criteria are as follows: (i) patients with visceral diseases, such as those in heart, liver, kidney, etc.; (ii) patients with hematological system diseases; (iii) patients with infectious diseases; (iv) patients with malignant tumors; (v) patients with congenital disabilities; (vi) patients who do not cooperate in this study and quit halfway.

2.2. Methods

Group A received routine nursing: First of all, we should observe the patient's physical indicators, educate the patient about the disease, and then give guidance on routine medication and diet according to the patient's condition and physical condition.

Group B received health management on the basis of routine nursing: (i) Health management training: Firstly, nurses should be trained in disease theoretical knowledge, nursing operation skills, professional quality and communication skills to standardize and optimize nursing operation and nursing process, and then lectured on the health management-related knowledge so that they understand health management methods and processes, as well as the specific responsibilities of nurses; (ii) Establishment of health management files: First, it is necessary to collect the basic information of patients, mainly including the patient's personal information, past medical history, drug allergy history, etc., and then assist the patient to complete relevant examinations, record the examination results, clarify the severity of the patient's condition and the location of the disease, and establish a health management file for the patient after collecting the above-mentioned information; (iii) Condition assessment: Firstly, after understanding the patient's condition and basic information, nurses need to conduct risk assessment on the patient, and then formulate a health management plan according to the assessment results. At the same time, they should also inform the patient of the assessment results so that the patient can fully understand their condition, and explain the health management plan to the patient so that they cooperate in the nursing work; (iv) Implementation of health management (psychological management): Since this disorder is painful and will affect the patient's ability to live, leading to poor psychological state and resistance to treatment. Therefore, it is necessary to take care of the mental health of patients. First of all, we should communicate more with patients, give targeted psychological counseling, and give patients support and encouragement, inform patients of some ways to regulate their emotions, and vent their emotions to make patients calm. In addition, they can also give patients mindfulness-based stress reduction therapy: (i) Life management: Firstly, it is necessary to keep the indoor air fresh, properly adjust the indoor temperature and humidity, pay attention to cold prevention and warmth preservation, remove indoor obstacles, and place anti-skid pads in the toilet to avoid patients from falling down. Then, it is necessary to guide patients to avoid maintaining a posture for a long time in their daily life, avoid carrying heavy objects, pay attention to joint protection and reduction of joint load. Patients should be advised to sleep on a hard board bed, and the pillow should not be too high. For overweight patients, they should pay attention to weight loss so as to reduce joint load. (ii) Sport management: First, the patient should be guided to carry out passive joint extension and flexion training, and then carry out joint external rotation, internal rotation and other training according to the patient's condition. After the patient's condition is stable, the patient can be guided to carry out aerobic training such as gymnastics, *taijiquan* and jogging, and attention should be paid to avoid strenuous exercise which will cause secondary damage to the patient and aggravate the condition. (iii) Drug management: First of all, we should explain the relevant knowledge of drugs used to patients, inform patients of the importance of rational drug use, set medication-taking reminders for them, and urge their families to do a good job in supervision and management.

2.3. Observation indexes

2.3.1. Joint function of the two groups

It mainly includes the degree of joint pain and the level of joint movement. By using VAS visual analog scoring method [3], the total score ranged from 0 to 10, and the score was positively correlated with the degree of joint pain. The joint movement level of patients was evaluated by Tegner score scale [4], and the scoring standard was: the higher the score is, the higher the level of joint movement is.

2.3.2. Quality of life of the two groups

SF-56 health measurement table [5] is adopted, mainly including physical function, physiological function, mental health, social function and emotional function, with 20 points for each item, and the higher the score is, the better the patients' quality of life is.

2.3.3. Nursing satisfaction of the two groups

By means of a questionnaire survey, the evaluation criteria are as follows: total score is 100 points; 90–100 points represent “very satisfied”; 60–90 points represent “satisfied”; 0–60 points represent “dissatisfied”.

Total satisfaction rate = [(very satisfied + basically satisfied) / total number of cases] × 100%

2.4. Statistical methods

Software SPSS25.0 was selected to analyze the data. Measurement data is expressed as mean±standard deviation and was analyzed by *t* test. Count data is expressed as count (%) and was analyzed by χ^2 test. $P < 0.05$ indicates statistical significance.

3. Results

3.1. Comparison of joint function indexes

Before nursing, there was no significant difference in sVAS score and Tegner score between the two groups ($P > 0.05$). The VAS score of group B was lower than that of group A, and the Tegner score of group B was higher than that of group A ($P < 0.05$) (Table 1).

Table 1. Joint function indexes

Group	Before nursing		After nursing	
	VAS score	Tegner score	VAS score	Tegner score
Group A (n = 25)	6.41±1.45	3.57±1.67	4.74±1.36	5.27±1.47
Group B (n = 25)	6.45±1.27	3.48±0.75	2.15±0.52	7.68±1.67
t value	0.104	0.246	8.894	5.416
P value	0.918	0.807	0.000	0.000

Data expressed as mean±standard deviation.

3.2. Comparison of quality of life

The quality of life of physical function, physiological function, mental health, social function and emotional function in group B was significantly higher than that in group A ($P < 0.05$) (Table 2).

3.3. Comparison of nursing satisfaction

The total satisfaction rate of group B was 96.00%, which was significantly lower than that of group A (72.00%) ($P < 0.05$) (Table 3).

Table 2. Quality of life

Group	Physical function	Physiological function	Mental health	Social function	Emotional function
Group A (n = 25)	15.57±1.69	15.74±1.75	15.48±1.69	15.45±1.36	15.82±1.54
Group B (n = 25)	17.54±1.82	17.27±1.65	17.67±1.52	17.72±1.48	17.63±1.64
<i>t</i> value	3.966	3.181	4.817	5.647	4.023
P value	0.000	0.003	0.000	0.000	0.000

Data expressed as mean±standard deviation.

Table 3. Nursing satisfaction

Group	Very satisfied	Basically satisfied	Dissatisfied	Total satisfaction rate
Group A (n = 25)	7 (28.00)	11 (44.00)	7 (28.00)	18 (72.00)
Group B (n = 25)	17 (68.00)	6 (24.00)	1 (4.00)	24 (96.00)
χ^2 value	-	-	-	5.357
P value	-	-	-	0.020

Data expressed as count (%).

4. Discussion

Clinically, such treatments are mainly for the purpose of eliminating pain, correcting deformity and improving joint function, and the diseases are mainly treated by drugs and surgery. During the clinical treatment, patients may have poor psychological state as well as low coordination and lack of exercise, which will bring some difficulties to the clinical treatment of patients. Some scholars pointed out ^[6] that for such patients, health management can be implemented during clinical treatment to improve the psychological and physical health status of patients as well as the physical recovery of patients, thereby achieving ideal implementation effect. Therefore, in order to further explore its application value, our hospital carried out this study.

In this study, through the implementation of health management for patients, the results show that compared with group A, patients in group B had lower VAS score, patients in group B had higher Tegner score, patients in group B had higher quality of life such as physical function, physiological function, mental health, social function and emotional function, and patients in group B had higher nursing satisfaction and significant application effect.

Health management is mainly a process of comprehensive management of patients' health risk factors ^[7]. Through the establishment of health records and condition evaluation for patients, nursing staff can have a deep understanding of the patient's condition, which is conducive to disease risk factors assessment, and patients can have a deep understanding of their own condition, which can effectively improve patient cooperation and is conducive to health management. The implementation of health management of patients' psychological state, life, exercise, medication and other aspects can effectively improve patients' mental health state, ability of the patient to cope with daily activities, and joint functional recovery. Besides, the method can make patients to become cooperative with treatment as well as reduce medication errors. Furthermore, it is conducive to clinical treatment of patients so that patients can recover faster and patients' quality of life can be improved. In addition, it can effectively improve patients' satisfaction with nursing staff and significantly improve the level of clinical nursing.

In summary, health management can significantly improve the joint function of patients. Since the effect is ideal and the clinical application value is high, it is worthy of promotion and application.

Disclosure statement

The author declares no conflict of interest.

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