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Effects of Rehabilitation Nursing Management on the Rehabilitation Effect of Aged Patients with Cerebral Trauma Sequelae

Zhixie Su

Tarim University, Xinjiang, China

suzhixie@taru.edu.cn

Keywords: Rehabilitation Nursing Management, Brain Trauma Sequelae, Rehabilitation Effect Evaluation, Limb Function

Abstract: To investigate the effect of rehabilitation nursing management on the rehabilitation of aged patients with cerebral trauma sequelae. During the period from December 2018 to October 2019, 108 cases of elderly patients with TBI sequelae treated in the hospital of the case investigation site were selected and randomly divided into two groups, the control group and the experimental group. The experimental group included 56 subjects and the control group 52 subjects. Rehabilitation nursing management was used in the experimental group and routine nursing management in the control group. The final nursing satisfaction and the improvement of limb function were compared to analyze the effect of the two nursing management methods. The mental status of the experimental group was 17.65 and 19.21 at week 4 and week 8 after the nursing intervention, and that of the control group was 16.1 and 16.89. After the implementation of nursing intervention, the daily living ability of the experimental group was 59.22 and 62.9, respectively. The score of the experimental group was higher than that of the control group. The results of this study showed that the improvement degree of patients in the experimental group was better, and their nursing satisfaction was also better than that in the control group. Rehabilitation nursing management can significantly improve the rehabilitation effect of aged patients with TBI sequelae, facilitate the recovery of limb motor function, and significantly improve patient satisfaction, which is worthy of clinical application and promotion.

1. Introduction

According to statistics, in recent years, the incidence of brain trauma among the elderly in China is second only to limb injury, and the trend of increasing year by year, with the mortality and disability rate ranking first in trauma [1]. After injury, elderly patients with brain trauma are often

left with different degrees of dysfunction, mainly manifested in cognitive, behavioral, emotional, verbal, perceptual, and motor aspects, which seriously affect the quality of life of patients [2]. The sequelae of TBI can not only affect the control of the patient's condition, but also cause aggravation of the condition, which is not conducive to physical recovery [3]. Therefore, how to promote the recovery of patients and improve their self-care ability has become the focus of the treatment and nursing of TBI [4].

In recent years, the topic of rehabilitation of brain trauma has gradually become the focus of global medical staff [5]. According to literature reports, the organic combination of clinical treatment and comprehensive rehabilitation nursing intervention can make patients with brain trauma obtain good rehabilitation effect, improve their self-care ability and reduce secondary disability [6]. Early rehabilitation treatment and nursing can maximize the recovery of patients [7]. There have been a large number of studies on the early rehabilitation and nursing of patients with traumatic craniocerebral injury at home and abroad, but most of them focus on functional exercise. As an important factor affecting their rehabilitation, environment has not attracted enough attention [8]. In the field of nursing, environment, as one of the four basic concepts of nursing, is closely related to people, health and nursing [9]. In the field of neurobiology, with the deepening of the research on neuroplasticity after brain injury, the enrichment of the environment has become a research hotspot as the main external factor affecting neuroplasticity [10].

Based on the basic research on the influence of rich environment on neuroplasticity in the field of neurobiology, this paper discusses the effect of rehabilitation environment on brain plasticity, so as to further confirm the important role of rehabilitation environment on the rehabilitation of traumatic craniocerebral injury. It provides a reliable theoretical basis for the formulation of early rehabilitation nursing clinical intervention measures for patients with traumatic craniocerebral injury. Enrich and develop nursing environment theory.

2. Theories of Brain Trauma and its Sequelae

With the rapid development of China's traffic and construction industry, as well as the existence of injury factors such as natural disasters, the absolute number of accidents in the elderly increases, resulting in a continuous increase in the incidence of brain trauma. The person that weigh coma after traumatic brain injury and even death, and in recent years with craniocerebral trauma emergency technology and the rapid development of intensive care technology, severe traumatic brain injury mortality rate dropped significantly, and most of the survivors from different degree of disturbance of consciousness, behavior disorders, speech disorders, cognitive dysfunction, movement disorders, etc., are seriously affects patients' daily life ability, make its lower quality of life, bring huge burden to the family and society. Therefore, how to wake up early and improve cognitive impairment in patients with brain trauma is a hot and difficult topic in the field of neurological rehabilitation at home and abroad, and it is of great economic and social value for patients to truly return to their families and society.

Among TBI patients, 15%~20% of mild TBI patients have long-term cognitive impairment, while more than 50% of moderate TBI patients have long-term cognitive impairment. Unilateral spatial neglect is a common sequelae of cognitive dysfunction after TBI, especially in patients with right TBI. Domestic investigation shows that the incidence of unilateral spatial neglect in patients with brain trauma is 41.33%, among which the incidence of parietal lobe injury in the non-dominant hemisphere is the highest, followed by the temporal parietal junction/temporal lobe and basal ganglia. In the unilateral spatial neglect behavior test, patients with unilateral spatial neglect often show such phenomena as line deviation, lateral description, lateral drawing, lateral imitation, and lateral reading. The main methods of rehabilitation for unilateral spatial neglect include

compensation and training for environmental adaptation, arousal, sensory input, attention training, cross-promotion training, suggestion training, early walking, and repetitive transcranial magnetic stimulation (rTMS). In recent years, the treatment of unilateral spatial neglect by repetitive transcranial magnetic stimulation (rTMS) has become a hot spot, focus and difficulty.

Since the prevention of brain injury is a difficult area for the medical system to intervene, more attention is paid to the follow-up treatment and rehabilitation of brain injury. With the development of modern medicine, rehabilitation medicine has gradually developed and attracted more and more attention. In recent years, research on rehabilitation medicine at home and abroad has proved that proper rehabilitation medical care can make patients recover to the greatest extent. Therefore, for patients with brain injury, in the acute phase should not only strengthen drug treatment, but also early rehabilitation treatment. About the time of early recovery, it was generally considered that the recovery started within half a year after the onset of illness was early recovery. In recent years, studies have shown that rehabilitation treatment should be started as early as possible, and the earlier it is started, the better the recovery effect will be. It is generally believed that patients can start to intervene in rehabilitation 48 hours after their vital signs are stable and their neurological symptoms no longer develop. Taking positive and effective early rehabilitation nursing measures is of great significance to reduce disability, improve prognosis, improve quality of life, and make patients with brain injury recover to the maximum extent and return to society.

In view of the complex and diverse conditions of patients with brain injury and the different manifestations of dysfunction, comprehensive rehabilitation therapy is adopted for brain injury in general. At present, the rehabilitation treatment mainly adopts a variety of physical therapy, operation therapy, speech therapy, combined with traditional Chinese acupuncture and massage therapy, supplemented by hyperbaric oxygen and other treatment methods to improve the damaged functions of patients with brain injury. With the development of rehabilitation medicine, there have been a lot of researches on the early rehabilitation nursing of patients with brain injury both at home and abroad, but most of them focus on functional exercise. As one of the four basic concepts of nursing, environment is closely related to people, health and nursing. Therefore, the effects of treatment and nursing environment on human health should be considered in the nursing process of patients with brain injury.

3. Clinical Data and Methods

3.1. General Information

During the period from December 2018 to October 2019, 108 cases of elderly patients with cerebral trauma sequelae treated in the hospital of the case investigation site were selected and randomly divided into two groups, the control group and the experimental group. The experimental group included 56 subjects and the control group 52 subjects. All the patients met the relevant diagnostic criteria of brain trauma sequelae in the "diagnosis and treatment of neurological diseases", excluding patients with severe neurological diseases and mental system diseases, all patients voluntarily accepted the study and signed the informed consent. Among the 56 patients in the control group, there were 38 males and 16 females, aged 65-82 years and with a course of disease ranging from 3 to 15 months. Among them, there were 23 cases of epidural hematoma, 11 cases of intracranial hematoma and 4 cases of brain contusion. In the observation group of 52 cases, 29 cases were male and 23 cases were female, aged 63-87 years, and the course of disease was 3-15 months, among which 27 cases were epidural hematoma, 18 cases were intracranial hematoma, and 7 cases were cerebral contusion. There was no statistically significant difference between the two groups in gender, age, course of disease and basic diseases.

3.2. Mursing Methods

(1) Control group

The conventional nursing mode of neurosurgery is adopted, that is, on the basis of the completion of conventional treatment and nursing, the patient is given simple health education and functional training. After discharge, the patient was called back to visit once a week and once a month respectively. The contents of the return visit included understanding of the condition after discharge and reminding of medication.

(2) Experimental group

On the basis of the completion of routine treatment and nursing, the patients in the observation group were given rehabilitation nursing mode. The specific contents of rehabilitation nursing are as follows:

1) Physical exercise ability training. The early stage is mainly the need for more movement of the patient's joints and muscles to prevent joint spasm and muscle atrophy. For the paralyzed limb of the patient to massage, massage, kneading and other methods of passive activities of the patient's muscles to prevent atrophy. Specific activities are: supine position when the forearm rotation, palm up, fingers should be as far as possible to open, each upper limb joints in extension position, hip, knee, ankle in flexion position; When taking the healthy lateral position, the healthy side is at the bottom and the affected side is at the top. At the same time, make the affected side shoulder forward extension, elbow joint extension, forearm rotation, wrist joint back extension, metacarpal joint extension; The pelvis of the affected side is rotated in front, and the hips and knees are in a natural semi-flexion position, which is placed on the pillow. The ankle joint is in 90 °valgus position, the body is relaxed, and the body is supported by a pillow. When taking the lateral lying position, the affected side is at the bottom and the healthy side is at the top. At the same time, the affected side upper limb is extended forward (to avoid shoulder joint compression and retraction). The shoulder is forward, the elbow joint is extended, the fingers are open, and the palm is up. The affected side's hip joint was slightly extended, knee flexion, ankle 90° valgus. Time is also gradually lengthened, mainly by patients' self-perception, which can be extended from the first 2 minutes, 5 minutes, 15 minutes, and finally to 1 hour. Training standing → stride → walk, double assist → single assist → help with crutches → walk without stick → step up and down. Wheelchair and crutches were used to assist the patients during their nursing. After 3 months of soberness, most of the patients were able to walk slowly and independently without foot droop and other sequelae.

2) Daily living ability training. Through the detailed observation of the daily life of the patient, the responsible nurse records the life events within the capacity of the patient, such as washing, eating, dressing, going to the toilet, bathing and other activities. The nurse according to the patient's specific situation to develop personalized training program, simplify the operation steps, adopt the method from complex to simple, so that the patient gradually improve their ability of daily life. Training needs to pay attention to step by step, a day or two training guidance, each lasting 20 minutes, for the progress of the patient timely praise and praise, improve the patient's confidence. During the training, the nurse should make full use of the patient's five senses, including hearing, vision and touch, so that the patient can accept and master new motor skills.

3) Memory training. The injury of the brain will make the patient's intelligence and perception function damage, in the nursing of the patient's intelligence function, to the patient's vision, hearing, touch and other sensory perception stimulation. The patient's family members should accompany the patient more, tell about the patient's previous experience, show the patient pictures of themselves or their friends, and arouse the patient's memory. Playing the music the patient used to like, reading the articles the patient used to like, and promoting the recovery of the patient's memory. At the same time of memory recovery for patients, with the treatment of drugs brain cells,

accelerate the recovery of patients' intelligence. Memory training including far memory training and memory training, which is far memory training to make full use of family resources, let the family members to collect the patient previously photos or clothing, and let the family members to the patient tells the story in the photo, where the patient can see objects, affection, reminiscing about the past life events, let the patient back to 1 times a day, to strengthen the memory. Near memory training is mainly by the nurse to introduce the basic daily knowledge to the patient, and let the patient repeatedly explain, in order to strengthen the memory.

4) Language functions of rehabilitation nursing. Patients can lose speech when their trachea is cut open during treatment and are affected by a brain injury. As a result, the patient cannot express clearly after waking up. Therefore, after the patient is awake, a pen and paper should be prepared for the patient to facilitate the patient to express what he needs and to carry out emotional communication. Then teach the patient to use facial expressions to express their basic needs, with a simple nod, shake his head, eyes open and closed to express and do not. After the patient pulls out the intubation, the patient is taught the pronunciation from simple to complex monosyllables, and the mouth shape is demonstrated for the patient. The patient is allowed to practice from one word to one word, one sentence, and several times of training.

5) Concentration training. On the basis of understanding the patient's personal preferences, the responsible nurse carries out targeted recreational activities, such as instructing the patient's family to accompany the patient to read a paragraph of text, and playing chess with the patient. Through the development of recreational activities to allow the patient to focus on an event of interest, and take this opportunity to strengthen training, so that the patient to maintain interest and focus.

6) Directional force training. Focus on training patients about the time, place, character orientation ability. Directional force training requires medical staff and family members to repeatedly mention a certain time, a certain name and objects in the room in the conversation with the patient, so as to help the patient form a concept of time, familiar with the name and environment. The whole training should be repeated several times, step by step, the next day asked the patient to recall the name of the training, the room in the items, and asked the patient to explain. For the patient who cannot repeat it, the nurse should be patient and guide the patient's expression by means of relevant hints. The setting of things and names throughout the training must have a distinct character, or the nurse may introduce names and names in a way that will impress the patient.

7) Rehabilitation nursing of deglutition function. After the treatment of patients, all functional insufficiency. Therefore, the patient needs to pay attention to the speed of food and food items when eating. After the patient is awake, the patient should eat slowly, and help the patient to eat, take a bite of food, put it into the middle of the tongue, lift the patient's jaw, help the patient to open the mouth closed, so that the patient is easy to swallow. Eat a diet that is liquid to semi-liquid to soft and finally to normal food.

3.3. Observation Items

The simple intelligent mental state scale is the first choice for evaluating senile dementia patients at home and abroad. The scale involves six dimensions, namely, orientations, memory, attention, computational power, recall ability and language ability. The score of each dimension is 0 ~5, and the total score is 0 ~30. The higher the score, the better the mental and cognitive status of the patient; the lower the score, the worse the mental and cognitive status of the patient; the lower the score, the cognitive impairment of the patient. For the changes of patients' clinical symptoms such as headache, dizziness and insomnia, the self-rating anxiety scale and self-rating depression scale were used to assess the values before and after treatment. The improvement of limb function was

evaluated by Brunnstrom classification, and the relaxation was 1. The spasm is level 2; Associated motion is level 3; Partial separation into 4 levels; The separation motion is grade 5; Normal motion is level 6. Observation items: the simple intelligent mental status scale and daily living activity scale were distributed to the two groups after the patients' condition was stable, and at the 4th and 8th week of nursing intervention. The daily life activity scale was evaluated by modified Barclay's index (MBI), which has 10 items, each item has 0 points to 10 points, and the total score is 0 points to 100 points. The evaluation criteria are: good >60 points, medium 41 points ~60 points, difference ≤40 points. The higher the score, the stronger the patient's ability to live daily, and the lower the score, the greater the decline in the patient's ability to care for themselves.

3.4. Quality Control

1) Before the implementation of the intervention, the researchers referred to a large number of data on rehabilitation methods of limb dysfunction in patients with brain injury, and went to the first affiliated hospital of a medical university to learn exercise methods in the department of rehabilitation, and consulted the rehabilitation doctor when encountering problems.

In order to avoid contamination among the subjects in this study, the subjects were grouped according to the disease area, that is, only the experimental group or the control group were in the same disease area.

In order to ensure the continuity of the caregivers' health education, the research objects of changing caregivers in the middle of the course were excluded.

Homogenized health education content: invite the rehabilitation physiotherapist to train the activity guidance content of all the researchers, and carry out the examination, the unqualified will not be employed; Make a unified daily life exercise manual for patients with brain trauma as reference materials to avoid errors and omissions in health education.

During the telephone return visit, the question content and manner should be unified to ensure the correct content. For example, if the patient can eat by himself, ask "can the patient feed the food (water) into his mouth by himself, what tools to use, whether he needs help, what kind of help he needs" instead of simply "can the patient eat by himself".

Develop a unified guidance language and a consistent interpretation language for all items.

Notes for training researchers' data collection: if there are missing items and obvious logic errors, they should be confirmed again and recalled after no error.

This is to ensure that an accurate MBI assessment is carried out. After the patient is discharged, the MBI assessment is carried out by asking the main caregiver.

3.5. Ethical Issues

1) Voluntary principle: before the study, the consent of patients and caregivers was obtained and informed consent of the study was signed.

2) Confidentiality principle: the personal information of the research object is strictly confidential, and all assessments are numbered instead of the name.

3) Beneficial principles: to provide psychological support to the research subjects and issue the "daily life activities of patients with brain trauma exercise manual".

3.6. Statistical Data Analysis

All the data involved in this study were analyzed and entered into the statistical software SPSS19.0 for statistical processing. In the experimental results, the patient's nursing satisfaction and improvement of limb function were expressed in the form of counting data rate (%), and the data

were recorded by chi-square test. In this paper, the measurement data were recorded by ($\bar{x} \pm s$), and the experimental results were tested by T-value.

4. Clinical Comparison Results

(1) Improvement of limb function in the two groups

The comparative results of limb function improvement in the two groups are shown in figure 1 below

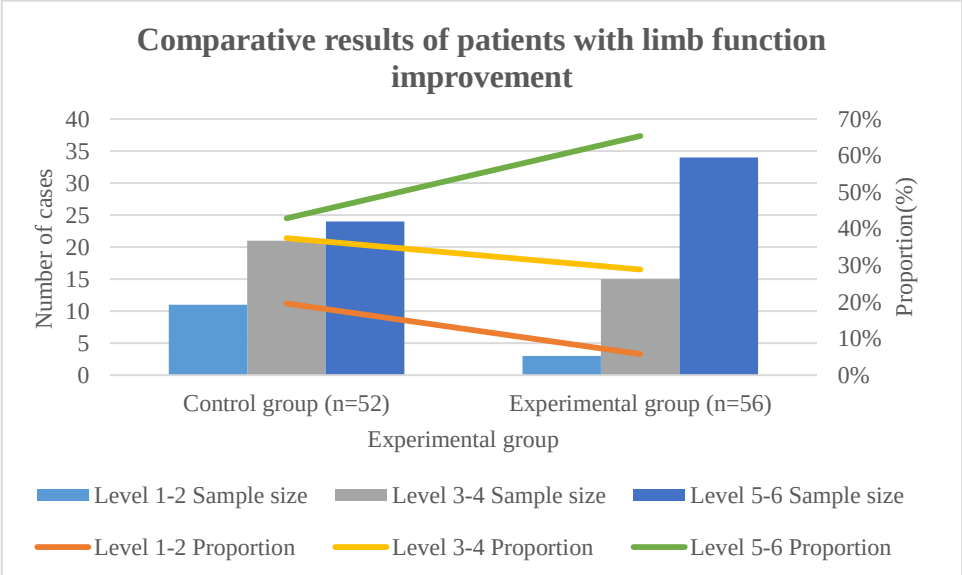

Figure 1. Comparative results of patients' limb function improvement

The results of this study showed that the limb function of patients in both groups was effectively improved, but the improvement degree of patients in the experimental group was better, and the difference was statistically significant ($P < 0.05$).

(2) Experimental results of mental state scale

The comparative results of the two groups of patients are shown in figure 2 below.

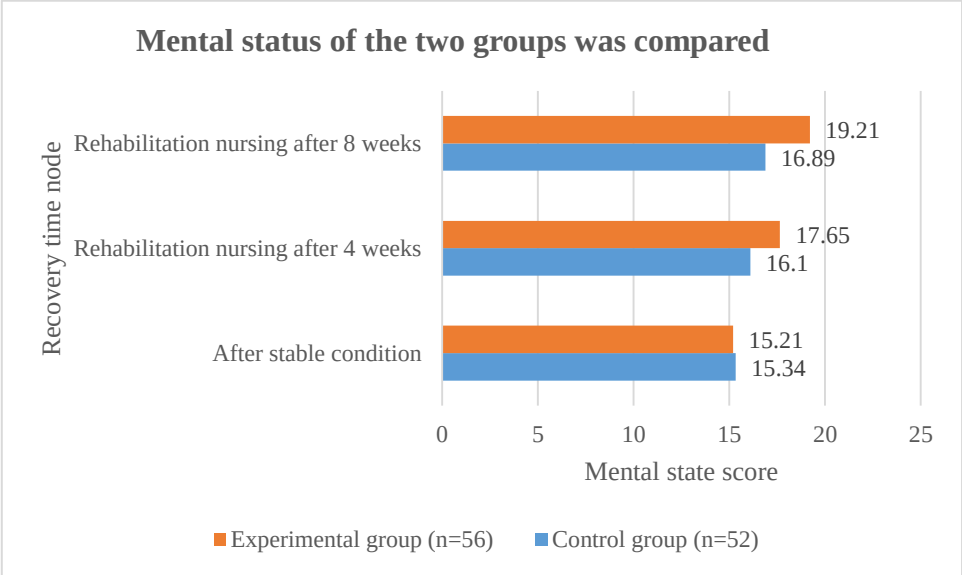

Figure 2. Comparison of mental status between the two groups

(3) Results of comparison of improvement of anxiety and depression symptoms

The results of the anxiety and depression self-rating scale, which reflected the changes of patients' clinical symptoms such as headache, dizziness and insomnia, showed that before treatment, the average score of anxiety in the experimental group was (43.81±3.02), while that in the control group was (42.65±2.96), with no statistically significant difference. After treatment, the scores of the experimental group (24.91±4.35) and the control group (34.84±4.72) were lower in both groups than before treatment (P<0.05), while the decline of the experimental group was greater, and the difference between the groups was statistically significant (P<0.05).

Before treatment, the depression score of the experimental group was (57.42±5.17) points, and that of the control group (56.71±4.26) points, with no statistically significant difference. After treatment, the scores of the experimental group (35.82±4.36) and the control group (46.13±5.37) decreased (P<0.05), while the scores of the experimental group decreased more, and the difference between the groups was statistically significant (P<0.05). The improvement of main clinical symptoms is shown in figure 3 below. The total effective rate of main clinical symptoms improvement is 84.25% in the experimental group and 53.5% in the control group, with statistically significant differences (P<0.05).

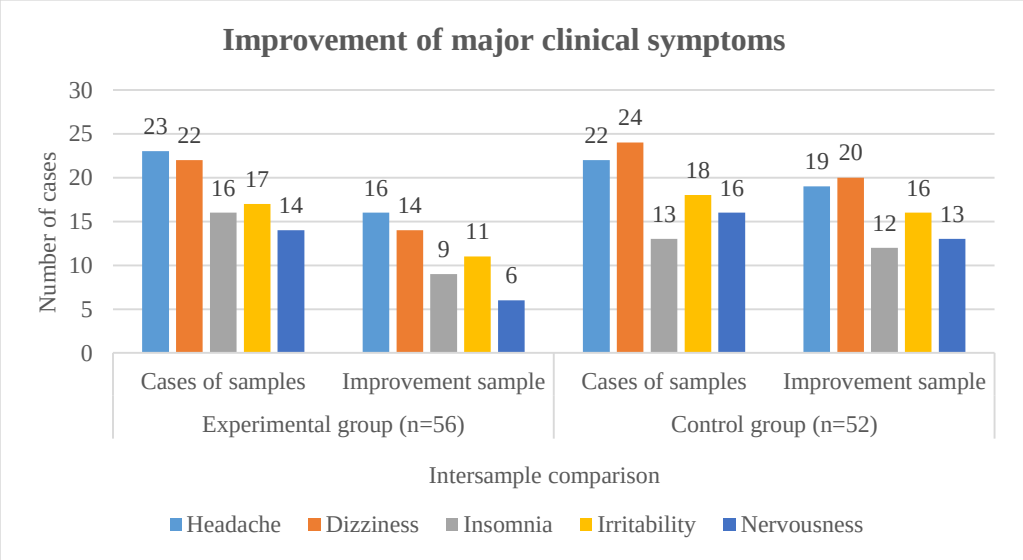

Figure 3. Improvement of main clinical symptoms

(4) Comparison of MBI scores between the two groups

The results of the improved pap index, reflecting the ability of the two groups of samples to perform daily activities, are shown in table 1.

Table 1. Comparison of MBI scores between the two groups

Group	Sample size	After stable condition	Rehabilitation nursing after 4 weeks	Rehabilitation nursing after 8 weeks
Control group	52	53.81±9.24	55.72±9.15	57.28±10.31
Experimental group	56	52.82±9.16	59.22±10.25	62.9±10.27
T-value	/	-1.215	9.257	9.356
P	/	>0.05	<0.05	<0.05

It can be found from the table that after 8 weeks of rehabilitation nursing management, the comprehensive MBI index score of patients in the experimental group is significantly better than that of the control group (P<0.0 5). It shows that rehabilitation nursing can effectively improve patients' daily behavior ability and mental condition.

(5) Comparison of patients' satisfaction with rehabilitation nursing management between the two groups

The comparison of patients' satisfaction with rehabilitation nursing management between the two groups is shown in figure 4 below.

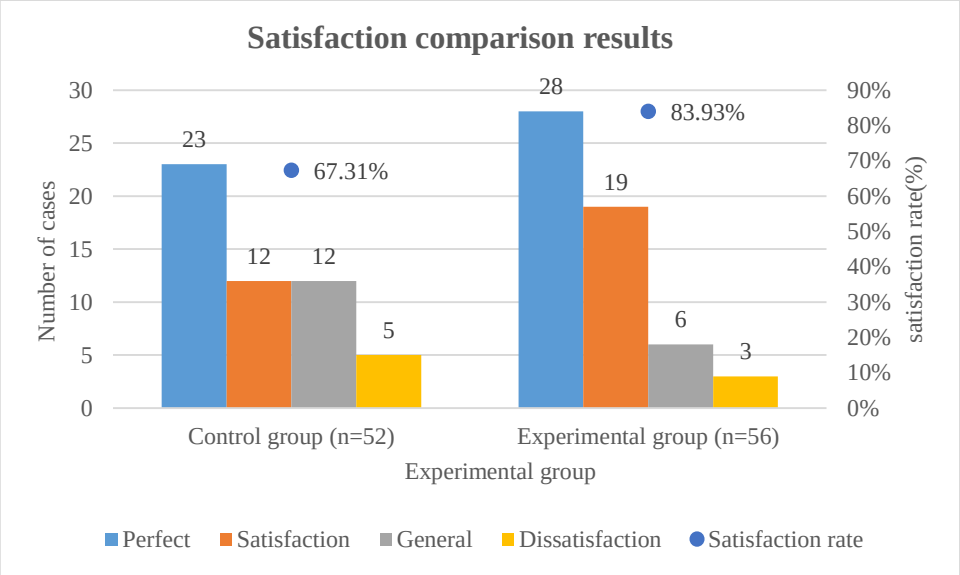

Figure 4. Patients' satisfaction with rehabilitation nursing management in the two groups

As can be seen from figure 4, compared with the control group, the patients in the experimental group significantly improved their satisfaction with nursing management ($P<0.05$).

5. Analysis and Discussion

5.1. Effects of Rehabilitation Nursing on Various Aspects of Aged Patients with Cerebral Trauma Sequelae

Rehabilitation of patients with brain trauma sequela, especially the elderly patients with limb dysfunction caused by patients with self-care ability, social role change, often leads to anxiety and depression patients, patients often pessimistic disappointment, negative pessimistic, in the face of daily life was not for the exercise of rehabilitation exercise, withdrawal and give up, even to rely on caregivers, seriously affects patients' daily life activities, which patients should be daily life activities ability can't show it. In this study, patient and careful health education and joint development of exercise plan during discharge preparation make patients realize the importance, necessity and possibility of self-care of daily exercise, which can improve the enthusiasm and cooperation degree of patients to participate in daily exercise. In the one-to-one exercise guidance after discharge, patients can be encouraged to adhere to functional exercise by positive feedback that affirms their efforts and slight progress. After discharge from the hospital, the telephone return visit to care and supervise the implementation of the exercise plan, so that the patients feel care and attention, can strengthen the patient to complete the daily life ability exercise every day perseverance.

Studies have found that exercise can improve the mood of elderly patients with brain injury, and make use of the rehabilitation of the disease. Therefore, patients in the experimental group were able to correctly demonstrate their ability of daily living activities. Even though the improvement of limb function was not obvious, their ability of daily living activities was higher than that in the control group. The ability of daily living is not only related to the patient's limb function, but also

related to the method of adapting to daily life in the case of limb disorder. In elderly patients with traumatic brain injuries, you need to learn and habits in the daily life of the limb disorder situation, but the majority of patients and caregivers don't know when physical barriers to complete daily life of methods and techniques, and man-made cause activity in daily life, such as when a patient is not know one hand twist dry towel couldn't realize her face, when using the MBI scores the score for the modified project from the actual 3 to 0; In addition, if the caregivers and patients do not know how to change the household Settings, such as the replacement of squatting by toilet seat will result in the patients with lower extremity muscle strength disorder unable to go to the toilet by themselves, when using the MBI score, the score of the toilet project will be changed from 5 to 2. Through health education during discharge preparation period, telephone return visit after discharge and re-guidance of patients' home environment, it can improve the knowledge and skills of daily life activities of patients and caregivers, and improve patients' MBI score.

The plasticity and functional recombination of the central nervous system enable the elderly with TBI sequelae to recover from limb disorders, which is related to the regression of edema in the damaged brain area, the gradual absorption of hematoma, the establishment of collateral circulation and the recovery of damaged but not necrotic nerve cells. But the compensatory function of cerebral cortex and restructuring of naturally occurring is slow, daily life activities exercise can accelerate the cerebral collateral circulation, promote the growth of damage zone around axons nerve cells and the contralateral compensatory function of nerve cells and reorganization, can increase the degree of nervous function recovery, maximize the central nervous system to repair itself. The patients in the experimental group were given continuous nursing to improve their enthusiasm for daily life activities, improve their completion rate of daily life exercise, improve collateral circulation of the brain through exercise, recover brain function faster and to a greater extent, improve physical disorders and improve their ability of daily life. Activities of daily living a form of exercise exercise that has been shown to improve patients' daily activities. Table 1 reflects the two groups of patients discharged from hospital daily life activity score no statistical difference, but after 8 weeks of daily life activity score more P value is less than 0.05, reflecting the MBI scores higher than the control group, experimental group patients was statistically difference, shows that through the implementation of the continuity of care can improve the ability of patients daily life activities.

5.2. Effect Evaluation of Rehabilitation Nursing Management

The elderly patients with brain trauma sequelae are a special group, because the damaged part of the brain, often appear a certain degree of physical and cognitive dysfunction. If the disease is allowed to progress, the patient's cognitive function and ability to live a daily life will be overall decline, which will significantly shorten the patient's survival time and reduce the quality of life. The disease not only needs symptomatic treatment, but also needs to pay attention to the patient's long-term rehabilitation training. Rehabilitation nursing emphasizes from the patient's body training, daily life ability, language ability, attention, orientation, memory and other aspects of intensive training. As a result of the brain injury patients will cause a decline in the ability to conduct activities, which will not only lead to the patient's inferiority complex, but also increase the burden on the family. Therefore, assisting patients to complete the daily activities within their capacity can make patients feel a sense of accomplishment while reducing the burden of caregivers. The responsible nurse guides and assists the patient to complete daily activities, and corrects the wrong posture in time, gradually helping the patient to improve self-care ability. As human beings are social beings, each patient is eager to communicate effectively with his or her family, so improving the ability of speech is also an important part of the training program. The responsible nurse should create a comfortable environment for the patient to communicate, and encourage the patient to

listen to the radio and television to understand the outside information, enhance understanding and improve the ability of speech. Poor memory is a common problem among patients with brain injury, which not only troubles their families, but also is a major cause of their loss. The responsible nurse takes the way of seeing things and thinking about the situation, and asks the patient to take photos, music and other ways in the past, and then cooperate with the family members to describe the past life events in detail, to arouse the patient's previous memory, and in the future training, repeatedly encourage the patient to recall, strengthen the memory. In addition, the responsible nurse encourages the patient to memorize as much as possible by explaining the basic knowledge of daily life to the patient, and asks the patient to repeat it the next day to strengthen the memory. After 8 weeks of nursing intervention, the mental status score and MBI index of the experimental group were significantly better than that of the control group ($P<0.05$). It shows that rehabilitation nursing can effectively improve the daily behavior of patients, and improve their cognitive and mental status.

To sum up, for patients with brain trauma, rehabilitation nursing can not only improve the cognitive impairment of patients, but also improve their self-care ability, achieving satisfactory results.

6. Summary

Most patients with TBI show symptoms such as sensory, motor and language dysfunction, and the quality of life of most patients with TBI has not been significantly improved after surgery. Moreover, this disease is often accompanied by sequelae of different degrees in the elderly patients, which seriously affects the physical and mental health of patients. Effective rehabilitation nursing can reduce the disability degree of TBI and improve the quality of life of patients. Through comprehensive nursing intervention, nursing staff can establish a good doctor-patient relationship with patients, help patients to establish the confidence to overcome the disease, improve the compliance with treatment, is conducive to recovery. At the same time, nursing staff is in communication with patients, according to the patient's specific condition, physiological and psychological characteristics, establish targeted nursing measures, conducive to the control of adverse factors of the patient's condition.

In this study, 108 elderly patients with TBI sequelae treated in the hospital of the case investigation site were selected, and the samples were usually divided into the experimental group and the control group by numerical random method. Rehabilitation nursing management was used in the experimental group and routine nursing management in the control group. The results showed that the 56 patients in the experimental group achieved good results in terms of limb function, speech function, nursing satisfaction and mental status after 8 weeks of rehabilitation care. The results show that rehabilitation nursing management can significantly improve the nursing satisfaction of elderly patients with TBI sequelae and contribute to the establishment of a harmonious nurse-patient relationship. In the nursing of elderly patients with TBI sequelae, the use of rehabilitation nursing management can improve their limb function, and at the same time help to improve the nursing satisfaction of patients, it is worthy of clinical application and promotion.

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Data Availability

Data sharing is not applicable to this article as no new data were created or analysed in this

study.

Conflict of Interest

The author states that this article has no conflict of interest.

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