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Observation on the Effect of Modified Tai Ji Quan in the Rehabilitation of Stroke Patients with Motor Function

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Abstract: Stroke is an acute cerebrovascular disease. When it is complicated, it greatly affects people's work and life, and the incidence is high and the rate of disability is high. In recent years, it has been found that modified Taijiquan has a certain effect on the rehabilitation treatment of stroke patients. Therefore, it is indispensable to carry out relevant research on the observation of the application effect of modified Taijiquan in the rehabilitation treatment of stroke patients' motor function. The purpose of this article is to solve the problem of how to improve the application of Taijiquan in rehabilitation treatment of stroke patients, by studying the effect of improved Taijiquan on the rehabilitation of motor function, based on the relevant content of the learned social cognitive theory, and using a questionnaire As well as research methods such as the comparative experiment method, the effect of modified Taijiquan on rehabilitation of stroke patients' motor function was discussed in detail, and an experimental group and a control group were established. The results of the study show that the improved Taijiquan plays an obvious role in the rehabilitation of stroke patients' motor function, and it can promote the rehabilitation of stroke patients' motor function to a certain extent. The experimental results show that the use of modified Taijiquan in stroke patients' motor function in rehabilitation therapy, the therapeutic effect is increased by about 10% compared to the ordinary therapeutic effect, and the body recovery is increased by about 15%. The therapeutic effect is better.

1. Introduction

Stroke, also known as stroke or cerebrovascular accident, has become the leading cause of disability and the second leading cause of death worldwide [1]. Epidemiological studies in 2017 show that the incidence of stroke in China is as high as 247.1 million, and the prevalence rate is as high as 1115 cases per 100,000 people. China bears the heaviest stroke medical burden in the world [2]. Motor dysfunction is one of the common dysfunctions of stroke patients, which will limit their daily life and lead to a significant decrease in patients' quality of life [3]. This has led to the

resolution of social and public health problems. Promoting the recovery of limb motor function in patients with stroke and hemiplegia is not only important for improving the patient's quality of life, but also for reducing the patient's family and social medical burden [4].

Tai Chi is a slow and even body movement that requires practitioners to maintain emotional calm, relaxation and concentration. The main action is a closed-chain action, with your feet supporting your knees. To achieve the movement of the center of gravity, the center of gravity moves slowly, and the balance can be well controlled [5]. The improved Taijiquan rehabilitation technology is applied to the rehabilitation of stroke patients' motor function, which is conducive to improving the patient's limb function and balance function [6]. The improved Tai Chi boxing procedure involves the transfer of the center of gravity of the lower limbs, which can effectively improve the support and control of the lower limbs [7]. Taijiquan mainly requires the practitioner to relax, pay attention to the reasonable coordination between exercise and breathing, uniform movement is conducive to muscle coordination, and the reduction in tension allows the control of the limbs to be in a random state. At the same time, the Taijiquan boxing routine is closely related to the mutual coordination and alternating movements of both limbs, which can greatly improve limb coordination [8].

In order to explore the role of improved Taijiquan in the rehabilitation treatment of stroke patients, the Wei-ming article shows the causes of stroke and some current methods and deficiencies in treatment, and the health impact of the current stroke on the society The problem is more serious, so we need to find a better treatment [9]. Mary investigated to explain in the article the main manifestations of stroke patients and their impact on the human body, so treatment should focus on these problems and help patients recover faster [10]. Among them, B.-J made a detailed introduction to the development of Taijiquan, analyzed the principles of Taijiquan in physical rehabilitation applications, and showed the effects and current problems of Taijiquan in the rehabilitation of stroke patients [11]. In the article, J.-L talked about the changes in the movement of improved Taijiquan, analyzed the feasibility of this change in the treatment of stroke patients, and put forward suggestions on the application of the improved Taijiquan to achieve better Effect [12].

In short, this article explores the effect of modified Taijiquan on rehabilitation of stroke patients' motor function. Specifically, the main research content of this article is roughly divided into five parts: The first part is the introduction part, which aims to make a systematic review of the main research content of this article from the research background, research purpose and research ideas and methods; the second part is The theoretical basis, detailed and systematic summary of the current pathology of stroke patients and the current status of treatment in medicine. The third part is related research, through inquiring information and conducting relevant experiments to explain the advantages of improved Taijiquan in the rehabilitation of motor function of stroke patients. The fourth part is the analysis of the data. Through the specific investigation data and research results, the improved Taijiquan's effect on the treatment of stroke patients' physical motor function and some other advantages; the fifth part is the summary and recommendations of this article It is a summary of the results of the article and further discussion, analysis and prospect of the application of improved Taijiquan in the rehabilitation treatment of stroke patients' motor function.

2. Proposed Method

2.1. Principles and Effects of Common Strokes

Stroke, also known as stroke or cerebrovascular accident, is a group of acute cerebrovascular diseases whose main clinical manifestations are cerebral ischemia and hemorrhagic injury. It has the characteristics of "four highs and one high", that is, high morbidity, high recurrence rate, high

mortality, high disability rate, and many complications. It is an acute cerebrovascular disease that seriously damages human health and life. Therefore, the medical community lists coronary heart disease and cancer as one of the three major diseases that threaten human health. In real life, certain people are very prone to stroke, but it is difficult to find at the initial diagnosis. It mainly includes the following aspects: (1)Heart disease: is the main risk factor for ischemic stroke, such as coronary atherosclerosis, sclerosing heart disease, rheumatic heart disease, especially patients with myocardial infarction and arrhythmia. (2)Hypertension: The risk of stroke in hypertensive patients is 2 to 4 times that of normal people, and it is the most important risk factor in stroke diseases. The main cause of stroke caused by high blood pressure is easy to cause changes in the structure of the heart and cerebral blood vessels. Increased blood pressure can cause spasms of small arteries throughout the body. Blood pressure will continue to rise for a long time, and the arteries will also spasm for a long time. Eventually due to lack of oxygen, the blood vessel wall will deform. Weakness leads to increased arteriosclerosis; at the same time, coupled with increased blood viscosity, high blood sugar, high blood fat and other factors accelerate the formation of cerebral thrombosis. The higher the blood pressure, the greater the risk of stroke, so controlling diastolic and systolic blood pressure can significantly reduce the likelihood of stroke. (3)Smoking: The results of various surveys indicate that smoking is another very important risk factor after hypertension and age. The ratio of never smoking to moderate addiction is 1:11, the main reason is that smoking will increase the content of plasma fingering, which may eventually lead to cerebral vasospasm.(4)Hyperglycemia: Hypercholesterolemia, especially the increase in low-density lipoprotein content, is an important risk factor for arteriosclerosis. (5)Diabetes: Diabetes is the main risk factor for is chemic stroke. Diabetes increases the chance of stroke by 1.5 to 3 times. The reason is that elevated blood sugar may cause micro-vascular and atherosclerotic lesions, such as renal arteries, cerebral arteries, coronary arteries and aorta. (6)Acute cerebrovascular disease: A history of stroke and transient cerebral ischemia are the main risk factors for stroke. The greater the frequency of transient cerebral ischemia, the greater the likelihood of stroke. (7)Other factors: abdominal obesity, lack of physical activity, taking high estrogen contraceptives, sudden cold temperatures, long-term mental stress, too little potassium intake, high sodium salt diet, etc.

The sequential of stroke are mainly manifested as stiff contractile, swelling, depression, even hemiplegia, aphasia, and no nutrition. For stroke patients, it is very necessary to perform rehabilitation training on the hemispheric site, and it is of course the best choice to personally assist the exercise by experienced professional doctors. Compared with healthy people, stroke patients have reduced stride length and stride, increased stride length, slower pace, reduced stride frequency, prolonged gait cycle time, and a significant increase in the proportion of leg support period in the gait cycle. The one-leg support period is significantly shortened, and there is no significant difference between the proportion of the standing side and the swinging phase of the affected side and the proportion of healthy people. The gait cycle of the healthy side and the affected side of the patient has significant changes, mainly manifested as extended swing time and healthy lateral support time. The variability of calf step length, swing time, per-swing time and stride time in stroke patients was significantly higher than that in normal people. Compared with healthy people, the variability of the swing time of the lower limbs of the affected side was significantly increased; compared with healthy people, the step length and swing time of the affected side were significantly increased, while the standing time was significantly shortened. Compared with the healthy control group, the double support period on both sides of the patient and the single support period on the healthy side were significantly increased, while the single support period on the affected side was not significantly different from that of healthy people, and these increased support times resulted in

longer The gait cycle, thereby reducing the pace. Because motor function is of great significance in the life of stroke patients, especially the decline of motor function in stroke patients is an important reason for stroke patients. Some scholars pointed out that the balance function of stroke patients is more significant than the decline of other physiological functions, and the decline of motor function increases the possibility of falling, which directly affects their physical and mental health. Among the elderly stroke patients, falls are the second leading cause of accidental injuries to stroke patients. The medical loss and the loss of significant economic costs caused by non-fatal falls are considerable. Therefore, the treatment of stroke patients is inevitable in public health.

2.2. Development and Improved Application Principles of Tai Chi

Tai Chi is one of China's excellent boxing varieties and a wonderful flower in China's extensive and profound traditional culture. It originated more than three hundred years ago, during the late Ming and early Qing dynasties, it was first used to strengthen the body and resist external aggression. Later, it was also found to be very helpful for physical and mental balance and emotional calm. In the past, people paid attention to Taijiquan's four or two pounds, unable to fight powerfully, and the heroes were invincible; because of the changes of the times, they were approved for their flexible health methods, and they were a self-cultivation exercise. Tai Chi, one of the traditional Chinese martial arts sports, has been widely circulated and developed throughout China. In recent years, with the increase in the number of practitioners, people have become more and more aware of the important functions of tai chi to improve their physical fitness through physical, psychological and medical surveys. Some scholars have shown that, compared with other sports and fitness programs, the scientific fitness method of Tai Chi combines the dual advantages of classical fitness and modern fitness. On the one hand, it is soothing, it can clear the meridians, regulate the organs, and achieve the purpose of physical fitness. This is the classical fitness value that Taijiquan has since the day it was formed; on the other hand, it is not affected by venues, equipment, and clothing. Limitation, not affected by the climate, is a method of adapting to modern people's fitness, especially for stroke patients, so it has modern fitness value. Tai Chi is a low-energy exercise, and its movement form is a movement that emphasizes motor function and lower limb muscle strength. During the movement process, the center of gravity moves in parallel to strengthen the lower limb muscle strength; when moving the pace, the whole body is fully supported by one limb The weight, meanwhile, should first sink down, lower the center of gravity of the body, then step down, put down the vacated feet, and finally move the body slowly. Therefore, regardless of whether the eyes are open or closed, the control of the center of gravity of the body and the motor function are beneficial. In addition, Taijiquan training incorporates the meridian theory into it, such as requiring the tip of the tongue to lightly touch the palate during practice, so that Ren and Du can communicate. Taijiquan's many "ball-holding" exercises can promote the lifting of the mid-coke air machine. The mid-focus is the lifting hub of the body air machine. Its smooth operation helps promote the smooth reach of the whole-body meridian air machine and speed up the body's recovery. Tai Chi exercise is not only the movement of the human body outside the joints of the body, regular Tai Chi exercise will also have a benign regulating effect on the internal organs of the human body. Basically speaking, it is the overall conditioning process of the body's essence, qi and god.

Not all stroke patients can perform standard and complete Tai Chi posture training. In order to make better use of the rehabilitation effect of Tai Chi, we have made the following adjustments and improvements. First, make appropriate adjustments to the practice methods and movement

completion requirements. In the Taijiquan posture training process, it is not emphasized that the patient must complete accurate posture movements and continuous back and forth movements, but should reduce the difficulty of posture adaptation according to the actual athletic ability of the patient, and perform posture decomposition training and stage training. The entire training process strictly follows the "difficulty principle". During the specific training process, it starts with healthy sideways movements and gradually turns to the affected side movements, gradually adapting the affected lower limbs to weight training. Decompose the standard posture, gradually reach the standard exercise posture from the partially completed posture, and carry out overall coherent training based on the patient gradually mastering the essentials of exercise. Starting with small-scale posture control training, gradually increase the difficulty of training; when the completion of the exercise is very high, the meditation practice is consciously strengthened. Secondly, according to the characteristics of lower limb movement disorders in hemispheric patients, training actions were improved and strengthened. According to the abnormal movement of the patient's lower limbs, choose the above 6 tai chi postures. In view of the characteristics of lower extremity muscle strength, increased tension, insufficient hip and knee flexing, insufficient ankle extension, and inversion of the foot, strengthen the hip flexor during training. Knee flexion and extension muscle strength training, strengthen the back and foot extension, foot valgus exercise, and strengthen the correct center of gravity training. For example, when practicing the starting position, instruct the patient to focus more on the exercise of the affected leg and bend the knee and hip as much as possible when the center of gravity of the affected leg moves, and always keep the toes forward and upward To strengthen exercise. Hip muscle strength can antagonize the abnormal shape of the hip, hyper-extension of the knee and external rotation of the hip on the affected side. When the center of gravity moves on a healthy lower limb, it is necessary to reduce the transmission speed as much as possible to make the single support of the lower limb longer. Improve its muscle strength and center of gravity control. When practicing wild horse splitting mane, the affected leg should be fully extended with the ankle as the swing leg to improve the backward extension of the ankle and the ability to control movement.

The improved Taijiquan posture training involves upper limb movement, which can effectively improve the exerciser's upper limb movement and coordination function. Although the current theme will focus on observing the effect of improved Taijiquan posture training on the lower limb motor function of hemiplegic patients, in the actual training process, the coordinated movement of the upper and lower limbs and posture control training are also emphasized. In the actual training process, according to the patient's upper limb muscle strength, muscle tension and other conditions, targeted flexor antagonism posture intensive training to restore the upper and lower limb motor function. In addition, through the improvement of Taijiquan exercise, it was also found that improved Taijiquan played a positive role in the rehabilitation of stroke patients' motor function. Through pathological analysis of stroke patients, it was found that the strength of improved Taijiquan is more suitable for stroke patients. Taijiquan exercise intensity is small, the movement is slow and soft and coherent. , Breathing, and movement are closely combined, so that the body's yin and yang, meridians, qi and blood can be adjusted to achieve the role of health care from both physical and mental aspects, which is consistent with the physiological and psychological characteristics of pathological treatment of stroke patients. Therefore, many of the current applications are to reveal the positive effects of physical exercise on stroke patients from the aspects of improving the motor function, walking ability and posture stability of stroke patients. Taijiquan exercise is a good way to improve the balance function, flexibility and joint flexibility of stroke patients. It has a significant impact on improving lower limb muscle strength, proprioception, motor

function and gait electromyography.

Since the improvement of Taijiquan's fitness effect on stroke patients has attracted more and more scholars' attention, many scientists and clinicians in the world, especially in Europe and the United States, have conducted relevant investigations on improved Taijiquan and disease prevention and health promotion. Up to now, many scholars have shown that improved tai chi has a significant effect on the physical and psychological health of stroke patients. Many scholars in China are also actively focusing on improving the application of Taijiquan to human health and other aspects, and have achieved rich results. To sum up, the current investigation about improved Taijiquan for the treatment and rehabilitation of stroke patients mainly focuses on the following aspects: the improvement of lower limb muscle strength of stroke patients by improved Taijiquan, and the improvement of motor function of stroke patients by improved Taijiquan, etc. Aspect.

3. Experiments

3.1. Experimental Objects and Methods

A total of 44 patients were included in this study. Random single blind method was used to divide the cases into two groups, 22 cases in each of the experimental group and the control group. The two groups of patients were not statistically significant in terms of gender, age, years of education, average disease duration, scores on the Berg scale and FMA scale, and were comparable. Conforms to the diagnostic criteria of cerebral infarction in Western medicine, and complies with the "Diagnostic Points of Various Cerebrovascular Diseases" revised by the Fourth National Cerebrovascular Disease Academic Conference of the Chinese Medical Association in 1995 "Chinese Cerebrovascular Disease Prevention and Treatment Guide", which meets the diagnostic criteria of cerebral infarction in Western medicine and traditional Chinese medicine, confirmed by CT or MRI examination; the first attack or per-attack, but no neurological dysfunction; Vital signs stabilized. This episode has symptoms of hemiplegia and can stand independently. Male and female age 35 to 70 years old; blood pressure is stable below 160 / 100mmHg; meets the diagnostic criteria for cerebral infarction, but the onset time is more than half a year; age is 35 to 70 years old; currently has no symptoms of hemiplegia; has a history of previous cerebral infarction, but MRS score ≥ Patients with a score of 2; people with dysfunction or failure of organs such as the heart, lungs, liver, and kidneys; those with moderate to severe cognitive comprehension or visual impairment who are unable to cooperate with the completion of rehabilitation treatment; people with diseases of the motor system, such as the cervical spine And lumbar vertebrae, bone joints or unstable fractures.

The current research mainly starts with Taijiquan's ability to improve the recovery of motor function of stroke patients. There is no in-depth discussion on the practice time and frequency. The research in this paper is to dynamically monitor the improvement of the motor function of stroke patients in the experiment, in-depth study of Taijiquan to improve the motor function of stroke patients, and determine the minimum practice time and frequency of Taijiquan to improve the motor function of stroke patients. Through dynamic monitoring of changes in motor function during the practice of taijiquan in stroke patients, the intensity and duration suitable for the practice of taijiquan in stroke patients are established to provide theoretical basis for formulating exercise prescriptions.

The control group received treatment with modern rehabilitation technology, including: Bo bath treatment technology, muscle strength and passive joint movement and other conventional *rehabilitation* training. Once a day, five times a week, once a month. The experimental group added

improved Taijiquan boxing rehabilitation technology training based on modern rehabilitation technology treatment. The specific contents of the improved Taijiquan rehabilitation technology include: modified international standard Taijiquan pull-ups, wild horse splitting mane, knee bending stepping step, for example Stepping, rewinding the arm, holding the bird 's tail, cloud hand, etc. for 1 hour, the degree of physical activity of patients with hemiplegia caused by stroke is different. During the practice of Taijiquan improved rehabilitation technology, the patient is not required to stick to the Taijiquan routine standards and Coherent movements before and after, but to complete the standard posture of all exercise movements to the maximum, to achieve the purpose of promoting physical function rehabilitation in standard posture exercise. The practice of Taijiquan's improved rehabilitation techniques is completed by the same intermediate rehabilitation teacher who is trained and familiar with the traditional Taijiquan routine posture. Once a day, five times a week for a total of 1 month.

3.2. Inspection Methods and Results

The current research mainly starts with Taijiquan's ability to improve the recovery of motor function of stroke patients. There is no in-depth discussion on the practice time and frequency. The research in this paper is to dynamically monitor the improvement of the motor function of stroke patients in the experiment, in-depth discussion of the improvement of Taijiquan's motor function in stroke patients, and to dynamically monitor the changes of motor function during the practice of Taijiquan in stroke patients. Exercise prescription provides theoretical basis.

Using SPSS17.0 software, the normality of the two sets of data was tested. Use two independent sample t-tests for data that conform to the normal distribution, and use the rank sum test (Wilcoxon) for data that do not conform to the normal distribution. Differences between groups before and after treatment. The two groups were compared within the group after treatment. The test group and the control group scored significantly on the upper and lower limbs, the total score of the FMA scale, and the Berg scale, which was significantly higher than before treatment ($P < 0.05$). The comparison between the index and the baseline difference after treatment showed that the total score of the FMA scale of the experimental group was significantly higher than that of the control group ($P < 0.05$), and the total score of the Berg scale was higher. Significantly higher than the control group, but no statistical significance ($P = 0.053$), as shown in Table 1.

Table 1: Patient's upper and lower limb scores before and after treatment

Index	Baseline	After 1 month of treatment
Upper limb	42.00±15.18	51.09±14.83
Lower limb	19.73±7.30	25.36±7.63
Total score	63.73±17.91	76.45±20.15

The results of the study show that the improved Taijiquan rehabilitation technology has a positive effect on improving the limb function and balance function of stroke patients. The improved Taijiquan style during the research involved the transfer of the center of gravity of the lower limbs, thereby improving the support and control of the lower limbs. Improve its balance function. Tai Chi requires practitioners to relax, pay attention to the coordination of breathing and movement, soothe and move at an even speed, reduce muscle tension, and achieve arbitrary control of the limbs. In addition, Taijiquan's boxing method involves alternating and coordinated movements of both limbs to improve the coordination of the limbs.

Since the improvement of Taijiquan's fitness effect on stroke patients has attracted more and

more scholars' attention, many scientists and clinicians in the world, especially in Europe and the United States, have conducted relevant investigations on improved Taijiquan and disease prevention and health promotion. Up to now, many scholars have shown that improved tai chi has a significant effect on the physical and psychological health of stroke patients. Many scholars in China are also actively focusing on improving the application of Taijiquan to human health and other aspects, and have achieved rich results. To sum up, the current investigation about the improved treatment of Taijiquan for stroke patients is mainly focused on the improvement of the strength of the upper and lower limb muscles of stroke patients and the improvement of Taijiquan's motor function Improvement and other aspects.

4. Discussion

4.1. Data Analysis of Improved Taijiquan on Walking of Stroke Patients

Research by foreign scholars confirmed that Tai Chi exercise can improve the hand-eye coordination of the elderly, reduce the fall rate of stroke sequelae, and improve the aerobic endurance of these people. In addition, studies at home and abroad have confirmed that Taijiquan can improve the balance and activity of stroke. There were no statistically significant differences in pace, step length, stride length and step width between the two groups of subjects, and the baselines were comparable, as shown in Table 2.

Table 2: Data on the effect of modified Taijiquan on patients' walking

Index	Test group	Control group	Difference
Pace	0.435±0.175	0.401±0.218	0.361
Step	33.02±10.44	31.49±13.84	0.506
Stride	66.24±18.37	61.42±21.93	0.277
Step width	11.64±5.04	13.03±5.19	0.315

Previously, there were few studies on Taijiquan exercise that can improve the motor function of stroke patients, and few studies on the improvement of motor function in patients with hemiplegia. This aspect of clinical observation is beneficial to explore and achieve certain results. However, in view of the time of this study, the number of cases collected is relatively small, which may be the reason for the low gender. In the follow-up study, the sample size will continue to be expanded to promote hemiplegia based on improved Taijiquan rehabilitation technology the patient's motor function and the mechanism that affects its overall physical and mental function go a step further.

In order to explore the consistency of clinical scale scores and gait parameters in evaluating rehabilitation effects, this study will analyze the bi-variate correlation between the baseline FMA and BBS scores of 44 subjects and all the gait spatiotemporal parameters in the analysis. The FMA and BBS on the lateral side of the lower limbs are non-normally distributed, so SPEARMAN correlation analysis was used for all patients. The analysis results showed that the FMA score of the affected lower limbs was significantly positively correlated with pace and step length ($P < 0.05$), significantly positively correlated with pace ($p = 0.060$), and significantly negatively correlated with gait Related. Step length ($p = 0.073$); BBS score is positively correlated with pace, step length and stride length ($p < 0.05$), and negatively correlated with stride length ($p < 0.05$). The FMA and BBS scores of the patients' lower limbs were significantly correlated with support time and gait cycle ($p < 0.05$), as shown in Figure 1 below.

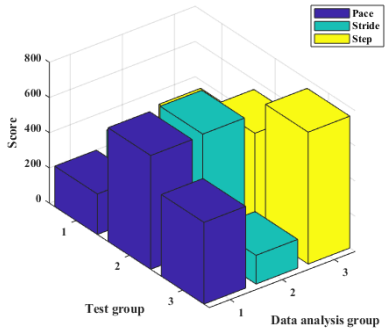

Figure 1: The relationship between pace and stride

From the data in Figure 1, the improved Taijiquan's impact on walking of stroke patients is about 10% higher than that of ordinary treatment programs, indicating that the improved Taijiquan has a good effect on walking of stroke patients. effect.

The pace of the two groups of subjects after treatment was significantly increased compared with that before the treatment, the difference was statistically significant ($p < 0.5$), the pace of increase in the test group was greater, and the comparison between the groups showed a statistically significant trend ($p = 0.052$). As shown in Figure 2 below.

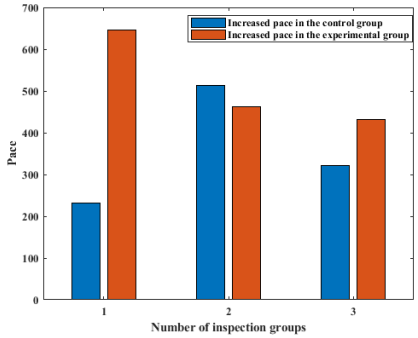

Figure 2: The effect of modified Taijiquan on the pace of patients

It can be seen from the data in Figure 2 that the general treatment effect has also improved the pace of stroke patients, but the increase is about 0.07m / s, which is 0.06 different from the improved Taijiquan for stroke patients m / s, so improved Taijiquan is relatively better in improving patients' walking motor function.

4.2. Analysis of the Recovery of Patients with Modified Taijiquan

The support time of patients in the experimental group after treatment was shorter than that before treatment, the difference was statistically significant ($p < 0.05$), while the support time of the control group after treatment and before treatment was not statistically different ($p > 0.05$). After treatment, the swing time and gait cycle of the affected side were not statistically different from before treatment ($p > 0.05$), but the gait cycle of the experimental group after treatment was shorter than before treatment ($p = 0.072$). As shown in Figure 3 below.

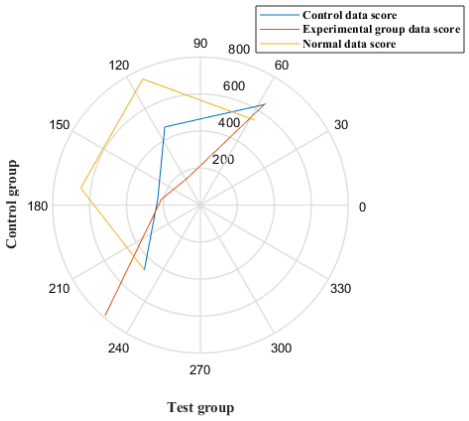

Figure 3: The Effect of Modified Taijiquan on Patient Support Time

From the data in Figure 3, the support time of patients after improved Taijiquan treatment is relatively increased by about 15%, and the general treatment effect is not obvious. In terms of gait cycle, although improved Taijiquan did not get a significant effect in treatment, the patient the gait cycle is also shortened to a certain extent, and follow-up can be based on research and improvement programs to find the best treatment. Modern rehabilitation therapy combined with improved Taijiquan posture training Modern rehabilitation therapy can effectively improve the lower limb movement and balance function of patients with ischemic stroke hemiplegia and improve walking ability, but improved Taijiquan posture training and modern rehabilitation methods Better than simple modern rehabilitation therapy, improved Taijiquan posture training can be a useful supplement to modern rehabilitation therapy technology.

The BBS score can more sensitively evaluate the balance ability of stroke patients, and it is especially suitable for evaluating patients with certain standing and walking ability in clinic. In this study, the FMA and BBS scores of the affected lower limbs were selected as the main clinical evaluation indicators. The results showed that the FMA and BBS scores of the affected lower limbs of the two groups of subjects after rehabilitation treatment increased significantly, and the test group was more significant, indicating that both rehabilitation programs Effectively improve the lower extremity function and balance function of hemiplegic patients, and improve walking ability. By comparing the score results after treatment, it is found that the patient's functional recovery is better when the baseline level is increased, indicating that the patient's prognosis is related to the degree of neurological impairment It is speculated that the possible mechanism is: the less the degree of nerve function damage, the better the residual nerve function, the higher the quality of rehabilitation training, and the better the prognosis. Of course, the overall recovery of the patient also needs to consider multiple factors such as the length of the disease, the degree of damage to the patient, and compliance with treatment, as shown in Figure 4 below.

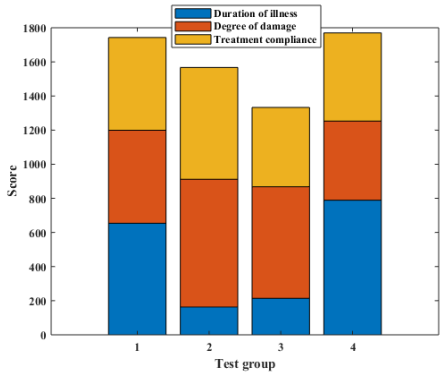

Figure 4: The extent of the patient's injury, the length of the condition and the effect of the treatment plan on the treatment

From the data in Figure 4, the treatment effect also has a great influence on the length of the patient's disease course, the degree of damage to the patient, and treatment compliance. Then the more obvious the treatment effect is, the treatment effect of patients with less damage is more than 10%. The method used in the treatment is also important. Choosing the appropriate treatment method is more conducive to the recovery of the patient, so the method selection should be carefully screened according to the patient's situation.

5. Conclusions

(1) This article analyzes the current physical problems of stroke patients, and discusses to solve these problems, and proposes corresponding solutions. Introduced the development and influence of Tai Chi, and carried out research on related treatment theories and concepts, analyzed the advantages and disadvantages of various current treatment methods, and expounded the related theories of stroke patients' condition and treatment plan. The feasibility of using modified Taijiquan for rehabilitation treatment of stroke patients' motor function was confirmed.

(2) An analysis of the aspects and causes of the impact of the body of the mid-point patient was carried out, the corresponding working principles and theoretical guidance were put forward, and the advantages and disadvantages of the analysis method were elaborated. In addition, different treatment methods have different effects about the patient. A good treatment plan can increase the recovery of the patient's body to a greater extent, which is about 15% more than the normal situation. And it can regulate the negative factors of the patient's psychology and behavior to a large extent, and promote the overall healthy development of the patient's body and mind and body.

(3) Discussing and verifying the feasibility and superiority of modified Taijiquan for the treatment of stroke patients. It has been verified by experiments that the improved Taijiquan plays a significant role in improving the walking function of stroke patients, and it can promote the recovery of stroke patients' bodies to a certain extent and improve motor functions. The experimental results show that the patients who use the improved Taijiquan treatment program have about 10% more motor function than the ordinary treatment effect, and the treatment effect is even more.

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