

Research Article

Application of Nanotubes Combined with Ethnic Sports Rehabilitation Therapy in the Treatment of Patients with Knee Arthritis

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National sports are traditional sports of ethnic minorities and sports with strong national characteristics. Sports performances generally include weightlifting, boxing or martial arts, gymnastics, skating, high jump, sprint, and hurdles. Such as knee joints that are particularly vulnerable to injury. Therefore, ordinary ethnic sports athletes are particularly vulnerable to injury. Ethnic sports rehabilitation therapy uses some exercises to enable patients to obtain full or partial exercise functions. Training methods for sensory function recovery were used. Ethnic sports rehabilitation therapy is a common rehabilitation therapy for ethnic sports athletes to resume sports training, such as table tennis, tennis, cycling, fishing, climbing, skating, weightlifting, and wrestling. However, with economic development and social progress, the treatment of knee arthritis is closely integrated with nanotubes combined with national sports rehabilitation therapy, and it has been increasingly used in competitive sports and national fitness. From 2003 to 2020, the medical research literature on nanotechnology increased from 20 to more than 20,000. This article presents a way for treating knee arthritis sufferers by combining nanotubes with ethnic sports rehabilitation therapy and discusses the clinical therapeutic effect of nanotubes combined with ethnic sports rehabilitation therapy in the treatment of knee arthritis patients. It provides a certain basis for the treatment of patients with knee arthritis. This article selected 100 knee patients, who, as research subjects, visited our facility for medical treatment between June 2016 and June 2020, and divided 100 patients into two groups, 50 patients in the experimental group and 50 patients in the control group. For patients, the experimental group used nanotubes combined with ethnic sports rehabilitation therapy to treat patients, and the control group used ethnic sports rehabilitation therapy to treat patients. The experimental results show that nanotubes combined with ethnic sports rehabilitation therapy can speed up the treatment process of patients with knee arthritis. When the experiment lasted only 5 days, patients in the control group scored an average of 3 points, and on the last day, they scored an average of 6.9 points. In the experimental group, the average score of patients on the fifth day of the experiment was 5 points, and the average score of patients on the last day was 9.7 points. The knee joint patients in the experimental group have higher walking ability, up-and-down ability, knee flexion, and knee swelling. In the control group, among them, the first to recover from knee arthritis is the ability to walk, and the slowest recovery is the flexion of the knee joint.

1. Introduction

National sports refer to the traditional sports activities of all nationalities in the world, such as Chinese martial arts, qigong health preservation, etc. National sports refer to the sports events and activities of ethnic minorities in a country [1]. As an important part of human sports culture, national sports reflect the horizontal inheritance relationship of national culture from its own characteristics, which can be

said to be a means of national education. Along the direction of inheritance and innovation, the national movement has explored the combination of popularization and improvement, the combination of mass and professionalism, the combination of traditional sports and modern sports and has made gratifying progress [2]. Therefore, it can be popularized in the future national sports activities.

Generally speaking, sports rehabilitation refers not only to the rehabilitation after injury but also to actively improve

the ability to prevent sports injury. Preventive rehabilitation is an important part of sports rehabilitation, reasonable exercise training is the basic guarantee of preventing sports injury, and the stability of spine, bone, ligament and muscle plays an important role in prevention and rehabilitation [3]. In the traditional modern rehabilitation system, including physical therapy, speech therapy, psychotherapy, and occupational therapy. Among them, athlete therapy, physical therapy, and stress therapy are the most common [4]. Compression therapy is the application of positive or negative pressure to treat dysfunction. For example, the positive pressure of muscles is used to relieve muscle spasm, and the negative pressure of limbs is used to treat limb vasodilation and improve tissue metabolism. The purpose of exercise rehabilitation is to treat sports injury and chronic diseases. Exercise therapy and physical therapy are two ways of thinking of exercise rehabilitation. Among them, exercise therapy is to slow the patients back to normal through a certain amount of exercise; physical therapy is a widely used treatment concept; it promotes the rehabilitation of patients through sound, light, electromagnetic heat and other means; homework therapy is a kind of treatment concept aimed at helping patients recover normal life function [5]. For example, when a patient exercises, one hand accidentally falls to the ground, resulting in a broken wrist. In the process of rehabilitation, occupational therapists are responsible for the recovery of normal writing and eating of injured limbs, which involves the recovery of some good tactile and proprioception training, which is different from the first two treatments. With the increasing popularity of mass sports, sports injuries, nutrition matching in the process of sports, self-protection, and so on have become the knowledge that the public urgently needs to know. Exercise therapy is to treat through a certain amount of exercise, physical therapy is to promote the recovery of patients by means of sound, light, electromagnetic heat, etc., and pressure therapy is to apply positive or negative pressure therapy [6]. In the past, the major of sports rehabilitation and health was mainly for professional athletes, and there were few talents with systematic knowledge of the combination of medical treatment and sports. Therefore, relevant talents have always been a hot demand for training bases and fitness clubs [7].

Knee arthritis is a chronic arthritis disease, mostly in the middle-aged and the elderly and sports people [8]. Joint diseases are common on these aspects. If knee pain recurred within a month, from mild to severe, accompanied by the sound of joint friction movement, temporary stiffness in the morning, X-ray shows narrowing of joint space, subchondral bone sclerosis or cystic change, osteophyte formation, or joint edge bone hyperplasia, it can be considered osteoarthritis [9]. Early knee pain should pay attention to joint protection measures: appropriate rest, weight loss, prevent excessive joint movement, and weight-bearing, to avoid mechanical injury. Physical therapy is more suitable for chronic knee osteoarthritis and has a good effect on relieving subacute inflammation. A variety of physical therapy forms, including hot compress, electric therapy, magnetic therapy, infrared ray, spa, mineral spring bath, mud therapy, wax therapy, ion and penetration method, to strengthen the

functional exercise of the affected limb can be chosen: increase the range of joint activity and strengthen the exercise of muscles. Nanotubes are 10000 times thinner than human hair, 100 times harder than steel, and have good thermal conductivity at 3593°C [10]. Nanotubes can be used not only as metal conductors but also as semiconductors for computer chips and superconduct at very low temperatures. Nanotube technology is mainly reflected in nanotechnology. Nanotechnology is the use of atoms and molecules to manufacture new materials. It is a technology to study the composition of materials with a size range of less than 100 nanometers. At this level, the research and processing of materials and material technology are called nanotechnology. This small space is the size range of atoms and molecules and the space in which they interact. In such a scale space, due to quantum effects, localization, and large surface and interface effects, many properties of matter have undergone qualitative changes. Nanotechnology is the study of nanophenomenon and material control, especially the extension of existing science and technology in nanoresearch.

Traditional knee arthritis patients have to rely on ethnic sports rehabilitation therapy to treat the knee joint, but for some elderly people, the effect of sports rehabilitation therapy is not obvious. Nanotechnology has increasingly infiltrated all facets of our lives as biological information technology continues to advance. Matthew explains how the characteristics of water aid functional recovery following ACLR. Matthew believes that if the major properties of hydrotherapy (density, hydrostatic pressure, buoyancy, and viscosity) are effectively applied to rehabilitation practice, specific protocols and supplemental videos for the use of hydrotherapy following ACLR can be developed to help implementation [11]. The continuous improvement of nanotherapy technology systems, especially the continuous improvement of nanodrug delivery systems, has enabled nanotherapeutics to achieve significant development in the medical field. When nanomedicine enters the human body, it will passively or actively target the nanocarrier, and then, it can be selectively delivered to the injured site. Nanotherapy reduces the harm of drug treatment to the human body to a minimum. On the other hand, the nanocarrier packaged with the therapeutic drug will protect the drug from biodegradation, allow the sustained release of the drug, and prolong the duration of the drug. In general, the targeted nanodrug delivery system has better therapeutic effects and fewer side effects. It is the best choice for knee arthritis treatment. Nanocarriers are widely used in the delivery of anti-knee arthritis drugs, plastids and dendrimers, micelles, nanocapsules, nanomaterials, and many other nanoparticles. These nanodelivery drug systems have achieved remarkable results in the treatment of knee arthritis. Combining nanotubes with traditional ethnic sports rehabilitation therapy to treat patients is the main research focus of this article.

The innovation of this paper is to propose a method combining nanotubes and national sports rehabilitation therapy to treat patients with knee arthritis and to discuss the clinical efficacy of combining nanotubes and national sports rehabilitation therapy for patients with knee arthritis [12].

2. Theoretical Basis and Core Concepts

2.1. Onset Factors of Knee Arthritis. The onset causes of knee arthritis mainly include four aspects: environmental factors, weight factors, age factors, and diet factors. Among them, environmental factors and diet are the main reasons. People who live in humid and cold environment all year round are most likely to suffer from knee arthritis, which is mainly due to low temperature and blood supply disturbance. Secondly, obesity and strong body incidence rate is high, overweight, and knee joint pressure increased. The incidence rate of arthritis is also higher with age. The accumulated strain of joints for many years is an important reason for the knee arthritis in the elderly. Finally, malnutrition is also one of the pathogenic factors of knee arthritis. There is no blood vessel in the articular cartilage, and the nutrition it needs depends on absorbing from the synovial fluid. The repair of cartilage is accomplished by the division and reproduction of outer chondrocytes and the secretion of matrix by chondrocytes. Due to the lack of nutrition and oxygen supply, the proliferation of chondrocytes will be affected, resulting in the reduction of cartilage matrix, insufficient cartilage regeneration, weakening of cartilage, and easy wear of load-bearing area [13]. The repair of cartilage is accomplished by the division and reproduction of the outer chondrocytes and the secretion of matrix by the chondrocytes.

2.2. Clinical Manifestations of Knee Arthritis. Whether suffering from knee arthritis can observe whether the knee joint trauma visible. After the occurrence of knee arthritis, often in the knee joint long bone spur, early bone hyperplasia does not affect the surrounding tissue, with the continuous growth of bone spur; it will gradually affect the surrounding tissue, the formation of inflammatory reaction. The symptoms of knee arthritis mainly include swelling of knee joint, pain of going up and down stairs, pain and discomfort of knee joint when sitting, swelling, tinnitus, and effusion will appear in patients. If not treated in time, it will cause joint deformity and disability, knee synovitis, ligament damage, meniscus injury, knee joint free body, popliteal cyst, chondromalacia of patella, palmar bursitis, knee varus, etc. The diagnosis method of early knee arthritis can be analyzed according to the joint swelling. The joint swelling comes from synovial hyperplasia and intra-articular effusion. In the early stage, it often occurs due to sprain and cold, and it will become persistent swelling later. There is a rubbing sensation or a popping sound when the joint moves.

The main symptoms of knee arthritis are knee swelling and pain, pain when walking up and down stairs, and knee pain when sitting. Patients with swelling, ringing, and effusion, if not treated in time, patients will cause joint deformity and disability. Knee synovitis, ligament injury, meniscus injury, free body of knee joint, popliteal cyst, chondromalacia of patella, goose foot bursitis, knee varus, and other knee diseases often occur [14]. If you stand up when the knee pain discomfort, activity after a period of time symptoms has been reduced, knee arthritis symptoms are obvious, and it should take timely treatment measures to reduce the symptoms of knee arthritis. Oral glucosamine drugs, including

glucosamine sulfate and other raw materials to synthesize cartilage, can improve the cartilage state of the knee joint, or lie down, straighten the lower limb, and platform the affected limb to 45 degrees for 3-5 seconds. 20 times, this will increase the strength of the quadriceps muscles to achieve the purpose of protecting the knee joint [15].

2.3. Knee Joint Is Not Aligned with the Lower Limb. The mechanical axis or alignment of the lower limbs is determined by a line from the center of the tibial joint to the center of the femur, which runs from the center of the tibial joint to the center of the femur. The uneven distribution of knee joint load is consistent with the high incidence of medial knee osteoarthritis. Varus deformity and right knee joint deformity are the most common lower limb deformity. Knees aligned with the varus are described as arched legs, while knees aligned with the valgus are described as touching knees. Valgus alignment affects the load distribution on the articular surface and reduces the bearing area. The whole lower limb is a complete exercise chain. Therefore, the arrangement of bones can affect the load pattern at one level and have a profound impact on other levels [16].

2.4. Biomechanical Load and Lower Extremity Osteoarthritis. Some studies have shown that the mechanical mechanism and biomechanical changes of the stressed joint play an important role in promoting the occurrence and development of knee arthritis. The experimental results showed that the total effective rate of nanotubes combined with ethnic exercise rehabilitation therapy in the experimental group was 100%, while the control group believed that only ethnic exercise rehabilitation therapy accounted for 60%. Nanotubes combined with national sports can speed up the treatment of knee arthritis patients and improve the quality of life of knee arthritis patients. A theory that repeated mechanical loading accelerates “wear” of joints has been supported by studies by obese people and professionals who often bend their knees or load. The incidence rate of knee arthritis was monitored for 11 years through a discharge registry in a Swedish hospital. The body mass index (BMI), waist circumference, waist-hip ratio, body weight, and body fat percentage of 1126 men and 16934 women were measured. This study provides strong evidence for the association between obesity and the incidence rate of osteoarthritis in the knee and hip joints. All overweight indicators are associated with the incidence of osteoarthritis of the knee, and BMI is the most dangerous. The incidence rate of hip osteoarthritis is normal, but significant. This study confirms the close association between obesity, mechanical loading and increased risk of knee joint and hip arthritis [17].

The theory of “wear and tear” has been supported by some people engaged in sports related undertakings and related researchers in the industry. The team conducted a longitudinal assessment of the relationship between lacquer joint use and knee arthritis in a multi occupational population. The occupational status and knee osteoarthritis were evaluated by weight-bearing arthrography over 40 years old. The working characteristics of the subjects were their

physiological needs and their relationship with knee flexion. 43.4% : 26.8% of men who engaged in flexion and had at least moderate physiological needs a higher risk of knee osteoarthritis than those who did not participate in both activities. These results suggest that for men, the combination of knee flexion and physiological needs may be the main cause of knee arthritis [18].

2.5. Exercise Rehabilitation for Knee Arthritis. Exercise therapy to prevent and treat knee arthritis is mainly to increase the muscle training around the knee joint. By exercising the muscle strength of the affected limb joint, it can prevent and control muscle weakness and muscle atrophy. Strengthening muscle strength can increase the stability of the joint, protect the joint, and prevent the development of osteoarthritis. The commonly used muscle strength training methods include isometric and isokinetic training [19]. The main exercise of this paper is hip flexion.

The main methods of exercise rehabilitation in the treatment of knee arthritis are hip four position exercise, clam type exercise, and sitting hip joint flexion exercise. Hip joint four exercises are mainly to exercise the flexors, extensors, adductors, and abductors of the hip joint. Clamshell exercise, the project for the gluteal muscle, thigh lateral muscle, tensor fascia lata, and knee joint muscle exercise. Although hip flexion exercise in sitting position is named after hip flexion and extension, strengthening hip flexor muscle is very important for knee joint strength. When these muscles are strong and work properly, the knees also become strong.

2.6. Nanotube Combined with Exercise Rehabilitation in the Treatment of Knee Arthritis. Nanotube combined with exercise rehabilitation therapy refers to the treatment of nanodrug at the same time of exercise rehabilitation treatment for knee joint patients. The nanotube drugs selected in this paper are polypeptide nanoselenium and functionalized nanoruthenium drugs. Nano drugs have unique properties, such as active or passive targeting at the injured site, improving the high efficiency of drug loading, intelligent drug release, and long-term kinetics. Secondly, peptide nanoselenium can improve the growth and reproductive performance of animals, improve the metabolic capacity of the body, and has a very good effect on the treatment of knee arthritis. Generally speaking, the greater the surface lipophilicity of nanoparticles, the stronger the binding force with regulatory proteins. Therefore, it is necessary to increase the hydrophilicity of nanoparticles in vivo. This is an important purpose to select the surface modification materials of nanoparticles. At the same time, the physical properties of nanoparticles can be modified to obtain new functions. Exercise rehabilitation therapy has a good effect in the treatment of knee arthritis. The combination of nanodrug therapy and national sports rehabilitation treatment, taking internal and external exercise, will have better treatment effect in patients with knee joint.

2.7. Prevention and Treatment of Knee Arthritis. Prevention and treatment of knee arthritis should pay attention to keep warm, avoid wearing high-heeled shoes for a long time, pay

attention to body posture when walking, and often participate in outdoor activities. When the temperature drops in winter, the knee joint is cold, the blood vessels contract, and the blood circulation is not smooth, which often makes the joint stiff and painful. Therefore, keep warm in cold weather, and if necessary, wear knee protection to prevent the knee from being cold. High heeled shoes change the curve of lower limb strength. In order to reduce the impact on the knee joint and avoid the impact and wear of knee joint cartilage, the elderly should choose thick shoes with soft and elastic soles in their daily activities. Pay attention to your posture when you walk. Do not bend down when you work. Do not bend your legs when you walk. Avoid squatting for a long time. Do not keep an action for a long time. Always change your posture. For example, after a period of practice, you can develop a good habit, for example, after standing every day, stretch your legs, tie horse steps, and develop a good habit of protecting your legs. Finally, we should often participate in outdoor activities. Before doing Yanko dance and Taijiquan, we should make full preparations. We should gently extend the knee to increase the flexibility and flexibility of the lower limbs. After the activity, exercise the knee. When practicing Taijiquan, the range of action should not be too large, and the squatting posture should not be too low, so as to avoid damage to the knee joint caused by weight-bearing.

3. Experimental Analysis and Methods

3.1. Experimental Objects and Standards. The study time selected in this article is from June 2016 to June 2020. The relevant data of 100 patients with knee arthritis admitted to this hospital during this period were analyzed. All patients were divided into two groups according to the difference in treatment plan: the experimental group and the control group. The patients in the experimental group were treated with nanotubes combined with ethnic sports rehabilitation therapy, and the patients in the control group only received ethnic sports rehabilitation therapy. There is a total of 50 patients in the experimental group and 50 patients in the control group. The experiment lasted for one month. After the experiment, the rehabilitation of knee joint patients was compared according to the results of the experiment.

3.2. Rehabilitation Treatment of National Sports. Before treatment, X-ray was used to make detailed diagnosis on the pain site of patients and to understand the tissue around the knee joint. The control group was treated with national sports rehabilitation during the period of knee arthritis. The rehabilitation treatment of national sports included three kinds of movements, and the patients in the control group did it twice a day. The three groups of movements include four hip exercises, clamshell exercises, and hip flexion exercises in sitting position. After the three movements, Taijiquan exercise is conducted for 30 minutes every day.

Hip four exercises include abduction, adduction, flexion, and extension. When doing abduction exercise, the upper body should be straight, the right leg should be lifted outward, and then, the left leg should be changed to do 4

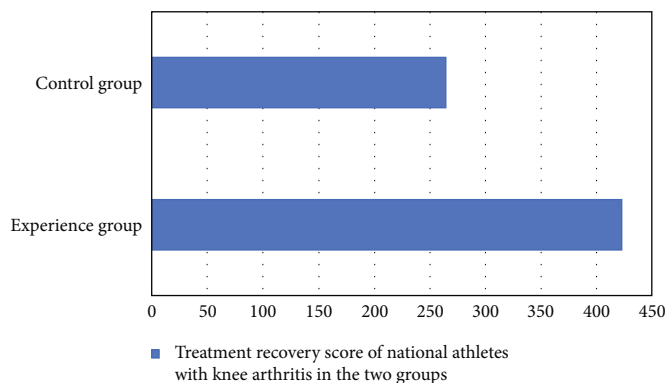


FIGURE 1: Treatment recovery score of national athletes with knee arthritis in the two groups.

groups, 8 in each group. In each group, do the right leg extension in 8 directions. When doing the forward bending training, the right leg should be extended forward, and then, the left leg should be changed. There are 4 groups of 8 in each group. When doing the back-extension training, the right leg should be extended backward, and then, the left leg should be changed to do 4 groups with 8 in each group. When doing this exercise, it is required to find a chair as an aid to avoid falling down accidentally; keep the upper body upright during the whole process; do not follow the lower limb to tilt the upper body; the whole process of ankle joint extension as far as possible, that is, bend to the knee joint direction (hook foot) as far as possible.

Clamshell exercise: lie on the ground on one side with the head rest on one arm. The pelvis should always be vertical to the ground. When the legs are opened, the pelvis should not fall back at the same time. During the movement, pay attention to the leg, keep the shoulder, hip, and ankle joints in a straight line. Bend the hip 45 degrees and bend the knee about 90 degrees. Put the left foot directly on the right foot and exert force on the left leg to make the knee slowly away from the body. Then, slowly return to the starting action, once done on both sides; do two groups, you can also use the cello belt to increase the intensity of exercise.

Hip flexion exercise in sitting position: patients are required to sit on a chair and lift their knees vertically. During the exercise, the upper body of the seat is required to keep straight. Each group has 8 legs and 4 groups.

Taijiquan training: two times a day to practice all the movements of Taijiquan, estimated to take 30 minutes.

In the process of exercise, it is appropriate to feel pain. With the improvement of the condition, the angle of flexion of knee joint should be gradually expanded. But do not excessively pursue the angle, causing the secondary damage.

3.3. Nanotube Combined with Sports Rehabilitation Therapy.

The experimental group was treated with nanotubes combined with sports rehabilitation therapy. The method was as follows: Before treatment, X-rays were used to make detailed diagnosis of the painful part of the patient and to understand the tissues around the knee joint of the patient. On the basis of ethnic sports rehabilitation therapy in the control group, the research group took a 30 mm × 40 mm

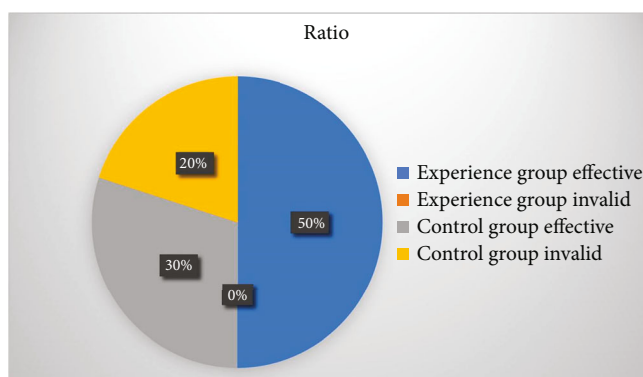


FIGURE 2: The rate of effective treatment in both groups.

square cloth to make a traditional Chinese medicine package. There are manual methods and automatic machine methods for the production methods of traditional Chinese medicine bags, including weighing and wrapping. The traditional Chinese medicine package contained peptide nanoselenium and functionalized nanoruthenium drugs, Heding, Liangqiu, massage the acupoints of Zusanli, Dubi, Yanglingquan, and Yinlingquan before applying plaster. Polypeptide nanoselenium and functionalized nanoruthenium drugs can deliver drugs to the inflammation of the knee joint. Chinese herbal medicines such as Heding, Liangqiu, and Blood Sea have very good effects on the treatment of knee arthritis. Then, apply the Chinese medicine pack to the knee joint. This step is implemented for three consecutive treatment courses, each treatment course includes 10 days, and this step is once every two days. At the same time, the patient's health exercise was strengthened during the treatment, and the exercise content was the same as the control group.

3.4. Observation Indicators for Treatment of Knee Arthritis.

To observe the clinical efficacy of patients suffering from knee arthritis in the experimental group and the control group, the effect of knee arthritis recovery is mainly carried out from the following three aspects. First, the degree of pain: The visual analogue scoring system is used to assess pain severity on a scale of 0-10 points, with 7-10 points indicating no discomfort, 4-6 points indicating mild pain, 1-3 points indicating moderate pain, and 0 indicating severe

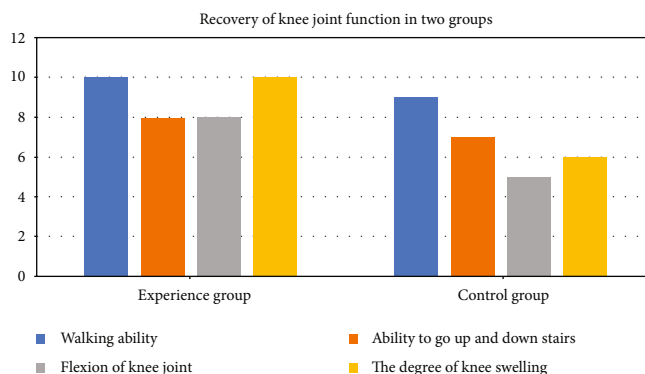


FIGURE 3: Recovery of knee joint function in two groups.

pain. After that, the average score of the two groups was statistically evaluated, and the average score of the effect of knee arthritis recovery of the two patient groups was calculated. Second, the efficacy evaluation criteria are as follows: effective: After treatment, the patient's clinical symptoms have improved; ineffective: after treatment, the patient's clinical symptoms did not improve; and (3) the patient's knee joint function recovery. The knee joint function score scale was used to evaluate the knee joint function of patients. The evaluation items of the score sheet include walking ability, ability to go up and down, knee flexion, knee swelling, etc. The total score for each evaluation is 10 points.

The clinical curative effect is based on the relevant diagnosis and treatment standards for osteoarthritis: knee joint stiffness and pain disappear, no friction sound during joint movement, and the effect is obvious after the movement function returns to normal; knee joint pain is reduced during movement, effectively improving the friction performance.

3.5. Statistical Methods. SPSS22.0 statistical software was used to examine the experimental data. Taking the sum of the scores of the treatment effects of knee arthritis as the standard, calculate the recovery scores of patients suffering from knee arthritis in the experimental group and the control group and the percentage of knee arthritis patients considered to be effective or ineffective in this group, which constitutes. The ratio is expressed as a percentage, and the effect of patient treatment is compared according to the number. The number of patients is counted as n , and the average count is expressed as x .

4. Experimental Results and Analysis

The data for this study comes from 100 individuals with knee arthritis who were examined at our institution between June 2016 and June 2020. Among them, there are 50 patients in each group. First of all, the effect of the recovery of knee arthritis patients. The pain scores and observe the scores of the two groups were compared.

It can be observed from the statistics in Figure 1 that the 50 patients with knee arthritis in the experimental group received a score of 467 in the treatment of nanotube combined with ethnic sports rehabilitation, and the 50 patients in the control group with arthritis. The patient's score in

the rehabilitation of ethnic sports is 265 points. Among the 50 people in the experimental group, 50 of them all had a painless range for the treatment of nanotube combined with ethnic sports rehabilitation. Two of them scored 7 points, 9 people scored 8 points, and 9 individuals scored 9 points and 30 people scored 10 points for a total of 467 points. The 50 patients in the control group scored 265 points, of which 8 people scored 2 points, 12 people scored 5 points, 25 people scored 6 points, 3 people scored 7 points, and 2 people scored 9 points. In the control group, 5 people felt no pain, 37 people felt some pain, and 8 people felt severe pain. The data in this section shows that the treatment of nanotubes combined with Chinese medicine packs has a very good effect on the treatment of knee arthritis. This is because nanomedicine can deliver the medicine to the inflamed part of the knee joint, which can more effectively treat knee arthritis.

Figure 2 shows the data from the control group on the left, and the primary sentence from the experimental group on the right. The experimental group, which accounts for 100% of the total number of participants in this group, feels that the combination of nanomedicine and ethnic sports rehabilitation treatment is successful, as shown by the statistics in Figure 2. Thirty respondents in the control group felt ethnic sports therapy was successful, accounting for 60%, and 20 people thought that ethnic sports therapy was ineffective, accounting for 40%.

The total scores of the knee joint patients in the experimental group who received nanomedicine therapy in combination with national sports rehabilitation were better than those in the control group, as shown in Figure 3. In the experimental group, 50 people were judged on walking ability. The average score given is 10 points, the average score given for the ability to go up and down is 8 points, the average score given by 50 people is 8 points for knee flexion, and 50 for knee swelling. The average score given by a person is 10 points. It shows that after a month of treatment, the recovery ability of knee arthritis patients is the best in terms of walking and knee swelling. This also shows that the pressure on the knee joint during walking is relatively small. At the same time, the ability to go up and down and the flexion of the knee joint is not particularly good in most people. The main reason is that the flexion of the up and down, and the knee joint requires higher knee joints. On the contrary, in



FIGURE 4: Scores in both groups during the experiment.

the control group, among the 50 people who only received ethnic sports rehabilitation, the average walking ability score was 9 points, the knee flexion degree was 50, and the average walking ability score was 7 points. People's average score is 5 points. In terms of knee swelling, 50 people's average score is 6 points. The data in the control group also showed that the ability of knee arthritis patients to recover is the ability to walk first, and the most difficult thing to recover is the flexion of the knee joint.

It can be seen from the data in Figure 4 that with the increase of the experimental time, the two schemes are effective, but the patients in the experimental group using nanotubes combined with ethnic sports rehabilitation therapy are significantly better than those in the ethnic sports therapy alone. The patients in the control group gave a higher average score, and the highest score for this stage was ten. When the experiment only lasted for 5 days, the patients in the control group scored an average of 3 points, and on the last day, they scored an average of 6.9 points. In the experimental group, on the fifth day of the experiment, the patients scored an average score of 5 points, and the patients scored an average score of 9.7 points on the last day. This experiment shows that nanotubes combined with national sports can speed up the treatment of patients with knee arthritis and improve the quality of life of patients with knee arthritis.

5. Conclusions

The incidence of knee arthritis in our country has been increasing among middle-aged and elderly people, especially our country is now entering the stage of aging population, so the treatment of knee arthritis is a matter of great importance. Knee arthritis refers to an inflammatory disease that occurs in the knee joint and surrounding tissues. This article mainly uses ethnic sports rehabilitation therapy combined with nanomedicine to have a better therapeutic effect on knee osteoarthritis. The experimental results show that the total effective rate of nanotubes combined with ethnic sports rehabilitation therapy in the experimental group is 100%, and the control group believes that only ethnic sports rehabilitation therapy accounts for 60%. The experimental group is significantly higher than the control group. After treatment, the walking ability, knee flexion score, and knee swell-

ing scores of the experimental group were higher than those of the control group. During the experiment, the scores of the experimental group were also higher than those of the control group, indicating that nanotubes combined with national sports rehabilitation Treatment can speed up the treatment time of patients with knee arthritis and improve the quality of life of patients with knee arthritis. In summary, the combination of nanotubes and ethnic sports rehabilitation therapy has a significant effect on knee osteoarthritis. This method can be used for reference in clinical applications.

Data Availability

The data that support the findings of this study are available from the corresponding author upon reasonable request.

Conflicts of Interest

The author declares that he/she have no conflicts of interest.

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