



Progress in the Application of Indoor Exercise Rehabilitation in Diabetic Patients

Qiang Wang, Mengchun Bao

Shiyan Taihe Hospital, Shiyan, Hubei, China

Abstract: The application of indoor exercise rehabilitation in diabetic patients Progress indoor exercise rehabilitation is an effective non-drug treatment method, which can be used to treat chronic disease management in diabetic patients. In recent years, with the continuous development and application of exercise rehabilitation technology, the application of indoor exercise rehabilitation in diabetic patients has also received extensive attention. This article will introduce the progress of the application of indoor exercise rehabilitation in diabetic patients, including exercise style, equipment and evaluation methods, as well as the impact of indoor exercise rehabilitation on glycemic control, physical function and mental health in diabetic patients. Through the introduction of this paper, we can understand the application status and future development trend of indoor exercise rehabilitation in the patients with diabetes, so as to provide more scientific and effective rehabilitation treatment for the patients with diabetes.

Keywords: diabetes, indoor sports, rehabilitation

1. Introduction

As the population ages more often, the number of diabetic patients is also increasing. Although effective, traditional drug treatments may cause side effects from long-term use, so it is particularly important to find a safer and more effective treatment. Recently, the application of indoor exercise rehabilitation as a non-pharmacological treatment method has gradually gained attention in diabetic patients. This paper will introduce the progress of the application of indoor exercise rehabilitation in diabetic patients, including exercise style, equipment, evaluation methods, as well as the impact of indoor exercise rehabilitation on the physical function and mental health of diabetic patients. The application of indoor exercise rehabilitation in diabetic patients can promote the recovery of patients's physical function, improve their mental health status, while reducing the generation of drug side effects. Therefore, the application of indoor sports rehabilitation in diabetic patients has a broad development prospect and important practical significance.

2. Application of indoor exercise in diabetes rehabilitation

Exercise prescription for the rehabilitation of diabetic indoor patients Diabetes mellitus is a common and chronic disease that affects hundreds of millions of people worldwide. For diabetic patients, in addition to drug therapy, reasonable exercise rehabilitation is also an important treatment method. This paper will introduce the exercise prescription for the rehabilitation of indoor patients with diabetes, including exercise style, exercise intensity, frequency and duration of exercise, and the makers and implementers of the exercise prescription[1].

The choice of exercise mode should be determined according to the specific situation of the patient, such as age, physical condition, medical condition, etc. Generally speaking, aerobic exercise such as walking, jogging, swimming and so on are suitable for diabetics. These exercises can improve heart and lung function, enhance physical endurance, and help control blood sugar. In addition, resistance exercise also improves muscle strength and body shape. exercise intensity The intensity of exercise should be limited to the patient to avoid excessive fatigue and injury. Usually, the intensity of exercise can be measured by physiological indicators such as heart rate and respiration. Generally speaking, the appropriate heart rate range for aerobic exercise is 50-75% of the maximum heart rate, while breathing should remain normal or slightly deepened. Frequency vs. duration of the movement The frequency and duration of exercise should be formulated according to the patient's specific circumstances and rehabilitation goals. In general, 3-5 cardio exercises a week for 20-60 minutes. Patients undergoing exercise rehabilitation for the first time should start with low intensity and a short time, and gradually increase the intensity and duration of exercise. Maker and practitioner of exercise prescriptions Exercise prescription for indoor rehabilitation of diabetes patients should be formulated by a professional rehabilitation therapist or doctor. Rehabilitation therapists or doctors should comprehensively consider the patient's condition, physical condition, rehabilitation goals and other factors to develop personalized exercise programs. Meanwhile, patients should exercise according to the protocol

and undergo regular assessments and adjustments. Reasonable exercise style, intensity, frequency and duration, as well as professional makers and implementers are the key to ensure the effective implementation of the exercise program.

3. The role of indoor exercise in the rehabilitation of diabetes

For diabetic patients, in addition to drug therapy, reasonable exercise rehabilitation is also an important treatment method. Exercise rehabilitation can not only help to improve the physical condition of patients, improve the quality of life, but also improve the psychological state of patients and enhance their self-confidence[2].

3.1 Exercise endurance

Exercise rehabilitation can enhance their physical endurance and improve their ability to cope with their daily life. Through aerobic exercise and resistance exercise, people with diabetes are able to enhance their heart and lung function and muscle strength, thus improving the body's tolerance. Exercise rehabilitation can also help patients gradually adapt to high glucose environment and reduce physical discomfort caused by high blood sugar.

3.2 Body composition

Exercise rehabilitation also has an important role in the improvement of body composition in diabetic patients. Reasonable aerobic exercise and resistance exercise can promote fat burning and increase muscle mass, thus improving the metabolic function of the body. Exercise rehabilitation can also help patients control their weight, reduce the risk of obesity, and further reduce the incidence of diabetes complications.

3.3 Mental state

Exercise rehabilitation in indoor diabetic patients also has a positive effect on the psychological status. Through aerobic exercise and team activities, patients are able to reduce stress and anxiety, and enhance self-confidence and self-esteem. Exercise rehabilitation can also enhance patients' social interaction and promote the establishment of interpersonal relationship, so as to improve the mental health level of patients. In addition, regular exercise rehabilitation can also help patients to maintain a positive attitude towards life and improve their satisfaction with life.

3.4 Health-related quality of life

Exercise rehabilitation in diabetic indoor patients also has a significant impact on the improvement of health-related quality of life. Exercise rehabilitation can improve the quality of life by improving physical condition, mental status and lifestyle. Patients are better able to cope with challenges in daily life and reduce physical discomfort and psychological stress due to diabetes. In addition, exercise rehabilitation can also enhance patients' sense of health, let them pay more attention to their health status, so as to more actively participate in healthy life. The role of exercise rehabilitation in indoor patients with diabetes is multifaceted. With reasonable exercise style, intensity, frequency, and duration, and guidance by a professional rehabilitation therapist or doctors, people with diabetes are able to achieve physical, psychological, and social benefits. Exercise rehabilitation can not only help to improve the patient's physical condition, improve the quality of life, but also enhance the patients' self-confidence and self-esteem, and promote their mental health development. Therefore, diabetic patients should actively participate in exercise rehabilitation and work with professionals to develop personalized exercise programs to achieve the best rehabilitation effect.

4. Safety of indoor exercise rehabilitation in diabetic patients Safety is very important in indoor exercise rehabilitation

First of all, diabetic patients should choose their own way to avoid too intense exercise, so as not to cause damage to the body. Secondly, diabetic patients should have regular physical examinations, monitoring blood sugar, blood pressure and other indicators, to ensure good physical condition. In addition, diabetic patients should also pay attention to environmental safety during indoor sports rehabilitation to avoid the interference of noise, dust and other adverse factors. In addition, diabetic patients should also follow their doctors' advice and instructions when conducting indoor exercise rehabilitation to ensure the safety and effectiveness of exercise rehabilitation[3]. If physical discomfort or abnormal symptoms occur, you should seek medical attention in order to get timely treatment and care. Diabetic patients in the indoor exercise rehabilitation, should pay attention to safety, choose suitable exercise methods, conduct regular physical examination and monitoring, and follow the advice and guidance of doctors. Only in this way can we ensure the safety and effectiveness of exercise rehabilitation, promote physical rehabilitation and improve the quality of life.

5. Summary

As a novel treatment for diabetes, indoor sports rehabilitation, has received much attention in recent years. Through reasonable exercise training, indoor exercise rehabilitation can effectively improve the physical function of diabetic patients and improve the quality of life. First, indoor exercise rehabilitation is effective in controlling blood glucose levels. Through reasonable exercise training, diabetic patients can better control their diet and drug dose, so as to achieve the effect of stabilizing blood sugar. Secondly, indoor exercise rehabilitation can improve the physical function of patients. Reasonable exercise training can enhance the muscle strength and cardiopulmonary function, improve the body's metabolic ability, so as to better control blood glucose levels. In addition, indoor sports rehabilitation also has the advantages of safety, convenience and easy adherence. Patients can perform exercise training at home, not limited by time and place, and can also develop personalized exercise programs according to their own conditions. In conclusion, the progress in the application of indoor exercise rehabilitation in diabetic patients indicates that this novel therapeutic approach has promising applications. However, at present, the application of indoor exercise rehabilitation is still in the initial stage, and more research and practice are needed to improve and promote this treatment method.

References

- [1] Jiangshan, Li Shengnan, Zhu Lunmen. Research progress in the application of resistance exercise in the rehabilitation of patients with type 2 diabetes[J]. *diabetes New World*, 2018, 21(08): 195-198.
- [2] Zheng Shuhua, Zhou Fengbo Effect of low-intensity aerobic rehabilitation exercise on the nursing of hemodialysis patients with diabetes nephropathy [J]. *Zhonghua Health Care*, 2024, 42(18): 156-159.
- [3] Wu Xiaomei, Wang Qiuqing The effect of low-intensity aerobic rehabilitation exercise on internal fistula maintenance and nursing satisfaction of dialysis patients with diabetes nephropathy [J]. *Zhonghua Health Care*, 2024, 42(05): 129-131.