

Research Progress of Self-Management Effect in Patients with Knee Osteoarthritis

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ABSTRACT

Self-Management of patients with knee osteoarthritis plays an important role in their treatment. In this paper, the present situation, influencing factors and measures to improve the self-management of patients with knee osteoarthritis were reviewed, so as to provide the basis for further improving the self-management level of patients with knee osteoarthritis.

Keywords: *Knee osteoarthritis, Self-Management behavior, Self-Efficacy, Health education*

1. INTRODUCTION

Knee osteoarthritis (KOA) is a common degenerative skeletal system disease, which occurs in the elderly and is the main cause of chronic pain and dysfunction.^[1] It causes patients to suffer from long-term pain, and even paralysis in severe patients, which brings pressure to patients, their families and society^[2]. This article has been in the past ten years self-management of knee osteoarthritis patients. The present situation and effect of knee osteoarthritis were systematically reviewed, aiming at providing some experience and enlightenment for improving the self-management ability of patients with knee osteoarthritis in China and delaying the development of their disease.

2. THE CONCEPT OF SELF-MANAGEMENT

Self-Management means that individuals actively participate in disease or behavior management, role management and emotional management to promote the improvement of their own diseases and health recovery^[3]. Arthritis self-management is to enhance patients' self-confidence in healthy life through health education, master the knowledge and skills needed for health, assume the responsibility of promoting health with the support of health personnel, and rely on their own strength to solve various physical and emotional problems caused by unhealthy lifestyles^[4]. Self-

Management behaviors of patients with knee osteoarthritis include exercise (physical exercise and endurance exercise), cognitive symptom management practice, communication with doctors, diet adjustment, etc.^[5].

3. SELF-MANAGEMENT STATUS OF PATIENTS WITH KNEE JOINT DISEASE

Researchers mostly use the "Self-Management Behavior Scale" created by Lorig et al. in the study of self-management of chronic diseases to measure the level of self-management behavior of patients with knee joint diseases^[6]. Wang Fenglan et al. (2013) investigated 216 rural middle-aged and elderly KOA patients in Tangshan City and found that their self-management was poor, and the score indicators of several dimensions were lower than 40%, among which cognitive symptom management and endurance exercise management were relatively good, while physical exercise and communication with doctors were poor^[2]. Wang Fenglan et al. (2014) investigated 296 elderly patients with KOA in urban and rural areas of Tangshan City, and the results showed that there was no statistical difference in the scores of rural and urban patients in self-management of sports and exercise. Rural patients scored higher in cognitive symptom management; Urban patients scored higher in communication with doctors^[6]. It can be seen that affected by living environment, economic level, social

culture, medical resources and health awareness, the level and effect of self-management of elderly KOA patients in urban and rural areas are different, but they are generally in a low level. Therefore, different intervention measures should be taken according to the different situations of urban and rural self-management, so that the elderly KOA patients in urban and rural areas can learn correct and effective self-management methods and alleviate their illness.

4. IMPACT KNEE OSTEOARTHRITIS RELATED FACTORS OF PATIENTS' SELF-MANAGEMENT LEVEL

4.1. Disease Knowledge

Disease knowledge refers to patients' understanding of the treatment and prognosis of their own diseases and the impact of diseases on their own physiology, psychology and society. Studies have found that the self-management behavior of patients with knee osteoarthritis is positively correlated with disease knowledge^[6-8]. Li Yuanhao et al. (2019) conducted a questionnaire survey on young and middle-aged patients and a small number of elderly patients in the orthopedic outpatient department of Wangjing Hospital and the outpatient department of the Institute of Orthopedic Injury of China Academy of Chinese Medical Sciences. The results showed that gender, age, educational level and nature of work had more obvious effects on the questionnaire items than other characteristics^[9]. In addition, some studies have found that body mass index and whether they have received health education also affect patients' cognitive level of knee osteoarthritis. Tang Chao et al. (2012) found that the cognitive level of knee osteoarthritis among middle-aged and elderly people with different body mass indexes is positively correlated, and the cognitive level increases with the increase of body mass index. The cognitive awareness rate of overweight group was higher than that of normal weight group^[10].

4.2. Self-Efficacy

As the core concept of social cognitive theory, self-efficacy refers to the subjective judgment of an individual's ability to perform a specific behavior. It is an important index to evaluate the effect of self-management intervention measures for arthritis patients^[11-12]. Self-efficacy is positively correlated with self-management behavior, Patients with knee osteoarthritis. The higher the level of self-efficacy, the better the self-management behavior^[8]. It is found that patients' self-efficacy is related to disease-related factors, cognitive and emotional factors and demographic factors. Zhao Yanan et al. (2018) found that there was a negative correlation between patients' illness time and self-efficacy. Patients with mild symptoms have higher confidence in overcoming the disease, but they lose confidence in disease management

due to the prolonged and repeated course of the disease. The degree of activity restriction reflects the severity of the patient's symptoms. The results of this study show that the more limited the activity of patients, the lower the self-efficacy^[13]. Zhu Siyue et al. (2017) found that the "avoidance" strategy in the coping style of osteoarthritis patients was significantly negatively correlated with the total score of self-efficacy. That is to say, the more unavoidable coping style patients adopt to the disease, the higher their self-efficacy level and the more confident they are about the recovery of the disease^[14]. Zhao Yanan et al. (2017) found that the factors affecting patients' self-efficacy have not been unified because the survey objects and the scales used in the study are different. Therefore, the level of self-efficacy of the research objects and the main influencing factors should be considered when formulating the intervention plan, so that the intervention can be carried out effectively^[15].

4.3. Social Support

As an important external resource, social support, including material and spiritual support and utilization, plays a positive role in relieving patients' bad emotions. Studies have shown that low level of social support is an obstacle for patients to adhere to treatment^[16]. The level of social support was positively correlated with self-management behavior, indicating that the higher the overall social support level of patients, the higher the self-management level of patients. Guan Xihong et al. (2016) found that old Patients with knee osteoarthritis scored the highest in subjective support and the lowest in support utilization dimension in, which may be influenced by Chinese traditional "filial piety" culture. Spouses, children and other relatives have a strong belief in caring for patients, are willing to support the elderly, and can give the elderly a certain degree of support and care. However, elderly patients are more sensitive in their own thoughts. Under the torture of chronic pain, they are more likely to increase the burden of self-feeling. They do not want to bother others and try their best to solve everything by themselves. Therefore, on the basis of providing routine social support for patients, nursing staff should guide patients to mobilize their own social networks, learn to rely on the strength of others and society, and enhance their ability and confidence in fighting diseases. When there are doubts about medical care measures, seek help from medical staff in time, and go to the hospital outpatient clinic regularly^[17].

5. MEASURES AND WAYS TO IMPROVE THE SELF-MANAGEMENT ABILITY OF PATIENTS WITH OSTEOARTHROPATHY

5.1. Strengthen the Health Management Education of Patients with Knee Arthritis

Health management refers to the whole process of

comprehensively monitoring, analyzing and evaluating the health of individuals or groups from biological, psychological and social perspectives on the basis of modern biomedicine and information management technology, so as to provide health consultation and guidance and intervene in health risk factors. Its core idea is to intervene and control various related factors affecting health, change passive treatment of diseases into active health intervention, and promote health to the greatest extent^[18]. Mu Zeli (2019) will select 78 patients with knee osteoarthritis, Divided into 39 study groups and 39 reference groups, and carried out self-health management education and routine intervention respectively. The results show that effective self-health management education is very necessary for the prevention and treatment of knee osteoarthritis patients. Self-health management education can improve patients' initiative, effectively prevent diseases, integrate medical resources, and improve patients' life treatment^[19]. Researchers found that TCM plays an important role in health management education. Sun Zhengping (2013) constructed TCM health management research based on physique research, and integrated TCM into health management, aiming at managing the whole course of osteoarthritis patients, thus achieving the purpose of "early prevention, early diagnosis, early treatment and early rehabilitation"^[20]. It is proposed to build a health management system for osteoarthritis under the guidance of the thought of "preventing diseases" and the concept of keeping in good health of traditional Chinese medicine, which is suitable for the national conditions. It is not only conducive to improving the trust between doctors and patients, promoting the construction of a harmonious doctor-patient environment, but also relieving the current "difficult and expensive medical treatment" in society. It is of great significance^[21].

5.2.Enrich the Self-Management Intervention Model

The study found that the self-management intervention mode mainly includes the patient-centered community collective intervention mode, the home medical service mode and the remote intervention mode based on the electronic health care system^[22]. Zhang Xidan (2021) treated 120 KOA patients in the community, They were randomly divided into two groups, 60 cases in each group were tested as control, One group was given a six-month community intervention, The results showed that the self-management ability of KOA patients undergoing community intervention was significantly improved, the WOMAC score was significantly reduced compared with that before the intervention, and the AIMS2-SF score was significantly improved. This indicates that the community intervention model can improve the self-management ability of patients. It is an effective model and can provide reference for improving the quality of life of KOA patients^[23]. Yu Jianmei et al.

(2019) The continuous nursing model based on APP communication not only increases patients' and their families' awareness of the condition, effectively guides patients' medication and exercise, but also increases patients' confidence, relieves patients' pain, and then improves patients' quality of life. It has great promotion value in clinical nursing^[24].

6. CONCLUSION

Knee joint Self-management of patients with inflammation plays an important role in their treatment. At present, there are many researches on self-management behavior and health management intervention of patients with diabetes and hypertension in China, The research on knee osteoarthritis is relatively few, and the intervention research on knee joint patients is mostly only in theory or in the initial stage. Therefore, we can learn from the successful experience of other chronic disease management and fully integrate into the management of knee osteoarthritis. In order to control disease symptoms, improve joint function and improve patients' quality of life, further research and exploration are needed.

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