

# Research on Ways to Achieve the Integration of Sports and Medicine under the Background of Aging

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**Abstract:** An aging society places a heavy burden on China's medical, economic and elderly services. The idea of integrating sports and medical services provides a way to solve these burdens, and provides a good idea for the realization of healthy aging. This study analyzes the meaning, background, and influencing factors of sports and medicine integration in an aging society, and puts forward the implementation path of integration in the context of aging: transforming ideas, training composite talents for sports and medicine integration, and building a knowledge platform for sports and medicine integration to establish a database of physical fitness for the elderly.

**Keywords:** Aging; Sports and Medicine Integration; Approach

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## 1. The background of the integration of sports and medicine in an aging society

### 1.1 Political background

Healthy China is a national strategy. Population aging is a worldwide problem. The government is leading us to develop a healthy aging path with Chinese characteristics. The state gives strong support and protection from the top policy level. Chapter 6 *Improving the Physical Fitness of the Whole People* of the *Outline of Healthy China 2030* clearly states: Strengthen the integration of sports and medicine and non-medical health interventions, and promote the formation of disease management and health service model that combines sports and medicine. Taking health as the most prominent emerging industry, sports and medicine integration as the most important path for cross-border integration<sup>[1]</sup>. *Healthy China Action (2019-2030)* clearly pointed out the role of sports in promoting health, encouraging and guiding social sports instructors to provide scientific fitness guidance services in fitness facilities. To provide prevention at the forefront, one of the best ways is through the scientific movement. The promulgation of these documents provides a good idea for a healthy aging society, and points the way to solving a series of problems caused by aging.

### 1.2 The elderly's needs for a high-quality life

Healthy old-age care and living with dignity are the ultimate goals of the elderly in their pursuit of a good old age. Chronic diseases are one of the influencing factors that disturb the high-quality life of the elderly. The latest scientific research shows that perennial adherence to proper exercise has a good auxiliary effect on the prevention of chronic disease in the elderly. From a physiological point of view, exercise can increase brain gray matter and slow brain atrophy and reduce the incidence of cognitive impairment or senile dementia in the elderly. In terms of physical fitness, regular exercise strengthens the muscle strength of the elderly and reduces the functional limitations of the elderly due to falls. It can be seen that the increase in work, entertainment and activity capabilities, and life extension are the main approaches to the prevention and health care of chronic diseases<sup>[1]</sup>.

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## **2. Analysis of the concept of sports and medicine integration**

At present, the academic circles have different interpretations of the concept of "sports and medicine integration", but their core concepts have the following in common: 1) From the perspective of medical services, applying medical knowledge and medical methods to ordinary fitness, in order to avoid sports injuries, Sports risk and sports injury treatment, and play an important role in rehabilitation. 2) From the perspective of sports, sports is used as a medical means to play an important role in sub-health and chronic patient groups, and to fully play the role of prevention → maintenance → promotion of sports. 3) From the perspective of the elderly, return to the origin of medical treatment and sports, it's necessary to integrate the science and technology of competitive sports and clinical medical technology, maintain the health of the elderly, and improve the quality of life of the elderly. In addition, the author believes that the country's proposal for the integration of physical medicine and medicine is to put sports in a dominant position, develop the medical function of sports, and propose "green" healthy treatment methods for patients. Making full use of sports to stimulate and using the body's own repair function can enhance physical fitness in the treatment of existing diseases, recuperate the body in the treatment of existing diseases, and enhance the ability to recover after the disease is cured.

## **3. Influencing factors of sports and medicine integration in the elderly**

### **3.1 The health literacy of the elderly is low**

The elderly have a low level of awareness and participation in physical exercise, and the elderly who never exercise do not experience the benefits of exercise. Among them, urban, male, younger age, higher education level, and have spouses The health status of the elderly who are not living alone is relatively better. Only 6% of the elderly are online<sup>[2]</sup>, which is not conducive to the elderly to obtain health information and health knowledge. The results of health literacy monitoring of Chinese residents in 2018 show that the health literacy level of the elderly in China is relatively low<sup>[8]</sup>. Low health literacy means that the old people have a poor cognitive ability on health knowledge, which directly leads to the old people's insufficient grasp of the concept, knowledge and basic health promotion skills of sports and medicine integration, which affects the old people's ability to monitor their own health status and chronic diseases<sup>[9]</sup>.

### **3.2 Research institutions do not have enough research and depth on the health status of the elderly**

The elderly are a special group. By searching the existing literature, it is found that the research on the role of sports in the medical care of the elderly is paid attention, and practical guidance is lacking operability. Because individuals have certain differences, some elderly people are suitable for the same sports, but some elderly people are not suitable. For individual guidance, individual exercise prescriptions suitable for the elderly must be issued in the guidance of medical personnel and medical monitoring. Most of the existing researches focus on the exercise prescriptions of non-elderly people, and the research on the health status of the elderly at various stages is scarce. There is not enough research on healthy people and healthy people in Central Asia for the elderly about how to control exercise risk, how to control exercise volume and exercise load during exercise and what kind of exercise to choose for the individual. These are the current problems to be solved.

### **3.3 The lack of guidance talents for the integration of sports and medicine health of the elderly**

The lack of talents is the most serious problem facing us at present, and there is a lack of professionals who prescribe exercise prescriptions suitable for the individual differences of the elderly. Nowadays, the channels for the elderly to obtain health knowledge are mostly obtained from the community, television and surrounding people. The training and dissemination of the knowledge and skills of sports and medicine integration relying solely on the medical department to disseminate are far from meeting the needs of the large number of elderly people who are looking for ways to control the movement during the exercise to reduce risks.

## **4. Ways for the integration of sports and medicine treatment in the elderly**

### **4.1 Change concepts, form synergy, and promote the process of sports and medicine integration**

Whether sports institutions or medical institutions, they are fighting alone in their respective research fields. Although they have made achievements in their respective research fields, it has also led to the solidification of ideas. It is generally believed that sports can strengthen and medical treatment is a cure. The elderly have a greater stereotype due to a lack of cognition. In the context of general health, the country's proposal for the concept of integration of physical medicine and medicine is aimed at changing the inherent concept of combining two parallel lines that have long been separated into one. By increasing the coordination of sports institutions and medical institutions, gathering the superior resources of sports institutions and medical institutions, and setting up sports prescriptions for different situations of sub-health groups and chronic patient groups in the elderly group, quantifying the

degree of intervention of sports and medicine in medical treatment to develop sports medical functions in sports, provide monitoring and medical assistance to control sports risks in medicine, form a "chorus" in two different fields, and trigger "resonance" to help elderly health services.

#### **4.2 Accelerate the cultivation of integrated talents for sports and medicine integration**

At this stage, there is a lack of sports experts with the medical background but with the laws of sports in the elderly. The new model of sports plus medical personnel training is becoming a new health revolution<sup>[3]</sup>. It is one of the tasks that need to be solved urgently at present to how to cultivate compound talents who are suitable for the health guidance of the elderly and integrate physical and medical services to better serve the health of the elderly. The author believes that we can proceed from the following aspects: First, we should start with the reform of higher education and set up the discipline of sports medicine in medical schools and strengthen the training of compound talents. Secondly, from a medical point of view, from community hospitals that serve the public, carry out training on medical personnel's sports knowledge and sports skills, and guide healthy elderly, chronically ill elderly, sub-healthy elderly to carry out scientific exercises. Finally, the training is conducted through the geriatric university. Among the elders who are looking for medical backgrounds and sports backgrounds, they are organized for professional knowledge training. These people come from the elderly, they can better understand the health demands of the elderly, and truly come from the elderly and serve the elderly. The establishment of a community training model to play the role of professional volunteers, regular guidance, build a community, sports, medical multi-party linkage platform, fill the gaps in the integration of sports and medical training, and better serve the health of the elderly.

#### **4.3 Establishing the physical health database for the elderly**

The community should be taken as a unit to collect the big data of the physical health information of the elderly. On the one hand, it can provide first-hand data support for research institutions to study the health of the elderly, which is convenient for the collection, analysis and research of cases, and improve the sports and medicine integration. On the other hand, a health file can be established for each elderly person. After the file is established, the elderly can be equipped with health managers, and a manager can allocate and manage a corresponding number of elderly people. Through the big data, the individual risk assessment of the elderly is conducted, and after intelligent analysis, prescriptions for individual interventions (exercise, sports and medicine integration) are set up. The elderly choose the exercise that suits them according to the prescribed exercise prescription, and control the exercise risk. The health manager collects data at this stage, adjusts in time, and conducts health intervention at any time to jointly check the health of each elderly.

### **5. Conclusion**

Combined with the elderly, the sports and medicine integration is to develop the medical function of sports on the basis of enhancing physical fitness, add sports elements to general medical treatment, make full use of the medical auxiliary function of sports, and solve the difficult situation that cannot be fixed by medical means. Next, sports such as sub-health, simple obesity, and mental illness can play a better medical replacement function. From a medical point of view, medical knowledge and medical methods should be used to supervise and guide the fitness of the elderly, prevent sports injuries, avoid sports risks and treat sports injuries.

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