

# A Comprehensive Literature Reviews on National Fitness Policy and Individual Factors for Physical Exercise in China

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## ABSTRACT

It is widely proved that physical inactivity would lead to chronic disease and be classified as a major non-communicable disease. The Central Government of China has already been aware of the negative impacts of physical inactivity and delivered various national fitness policies to reduce them. The study delivers intensive literature reviews on individual factors about physical exercise in China to improve national fitness policies. Generally speaking, individual factors can be further divided into three categories, including demographic characteristics (gender, age, income, education, and household register), health status (self-rated health, height, and genetic predisposition), as well as, economic status (income level and vocational factor). Based on the literature reviews, the study will highlight two problems in the research area, like a lack of systematic analysis of the factors for physical exercise, and a lack of comprehensive and typical study.

## INTRODUCTION

It has proved that physical inactivity would lead to chronic disease. As a major non-communicable disease classified by World Health Organization (WHO), it poses a great threat to public health along with suicide, smoking and alcohol abuse [1]. Against the backdrop, increasing the frequency of physical exercise is of great significance to the realization of healthy and sustainable development worldwide. As COVID-19 is still spreading today, the problem of physical inactivity is becoming more serious. In this context, WHO formulated Global Strategy on Diet, Physical Activity and Health [2] in 2004 and made diversified and multi-level studies and corresponding policies and suggestion in relation to the increase of physical exercise frequency worldwide. In 2018, WHO once again proposed The Global Action Plan on Physical Activity 2018-2030 [3] and formulated relevant policy action framework through national action, so as to increase the frequency of current physical exercise. Under this framework, national action needs to

consider macro and micro factors. The former one aims to facilitate policy action in social, cultural, economic and environmental aspects, while the latter one focuses on individual factors affecting the frequency of physical exercise. We are convinced that under the guidance of WHO, studies on promoting public fitness policy will become heated topics in the area of public health. Meanwhile, the ongoing globalization is getting every region worldwide involved in and creating a sounder and more active social climate.

Chinese government has always actively responded to the call of WHO and constantly promoted national fitness initiatives. With the issuance of Healthy China 2030 Initiative [4] by the State Council of CPC Central Committee in 2016, China made a comprehensive initiative and deployment to launch national fitness campaign and improve physical fitness of the general public. As the world is entering in the post-COVID era, the significance and urgency of integrating national fitness with public health in depth

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is becoming more obvious. The promotion and development of national fitness has become an important part to achieve the ambitious goal of Healthy China Initiative. Whether responding to international needs or domestic concerns, the study on factors affecting individual physical exercise is of great importance to find out existing problems in the current physical exercise promotion campaigns and constructing its promotion mode for Chinese in the modern era.

In the past, our government always liked to address problems with a one-size-fits-all approach. Nowadays, with the emerge of concepts such as Targeted Poverty Alleviation, Big Data, Blue Ocean Strategy, the formulation and implementation of policies concerning public health considers more about the application of science and technology. With the aim of studying and sorting previous studies on individual factors affecting national fitness, this study will sum up these factors relying upon big data covering many parts in China and hope to enrich theoretical contents in this regard. All these efforts will provide more suitable theoretical guidance and reference on the development and promotion of national fitness campaign in China.

### National Fitness Policy

In recent years, physical exercise is playing an important role in national sustainable development. That is why its promotion campaigns is also occupying a more important role in policymaking. When President Xi Jinping attended the seminar of representatives with experts from the field of education, culture, health and sports on Sep 22, 2020, he reiterated in the speech that the building of sports power should be pursued as an important goal in the 14<sup>th</sup> Five-Year Plan. Furthermore, public health should be put in the first place and new mode of health coordinating with sports and health departments and getting the whole international community involved in should be established [5].

In facts, Chinese government has always stressed the important role that physical exercise plays in strengthening physical quality and health status of general public. All these can be seen in a series of policies issued by the state council. In 1995, it formulated and issued An Outline of the Nationwide Body-building Initiative. In 2007 and 2014, it issued A Proposal on Strengthening the Physique of the Youth through Sports and Proposals on Boosting Sports Consumption through Accelerating the Development of Sports Industry respectively. These policies have made explicit deployment on developing public physical exercise and promoting the cause of building a Healthy China. The nearly two decades has witnessed great strides made in national fitness and the creation of social climate highlighting physical exercise [6]. As of the year 2015, the per capita area of gym in China entailed 1.57 m<sup>2</sup> and the ratio of population doing physical exercise regularly reached 33.9%. Meanwhile, the form of the elderly doing exercise is diversified and the average life expectancy expands to the age of 74.9.

Although our national fitness initiative made tremendous achievement since its implementation in 1995, physical exercise cannot fully leverage its role in strengthening national physique and improving the level of public health, which is still far away from achieving the goal of building a Healthy China. To this end, the state council of CPC Central Committee issued documents like Healthy China 2030 and National Fitness Initiative 2016-2020 to further guide and promote national fitness campaign. Since the outbreak of COVID-19 in the end of 2019, the state council also made corresponding adjustment to national fitness campaigns and

required newly built communities to equip with sports facilities in accordance with regulations. To this end, the normalization of developing online sports platform will be supported and exercise at home with the response to pandemic will be encouraged. All these efforts could ensure the development of national fitness activities in the post-COVID era [7].

### Individual factors affecting the Frequency of Physical Exercise

In China, studies on individual factors affecting the frequency of physical exercise started in 1990s. Since the enactment of National Fitness Initiative in 1995, there has been an obvious rise in the enthusiasm for research in this regard. Among the scholars, Ji Liu proposed a quite typical view, noting that there were lot of factors affecting the exercise and they could be generally classified as two kinds, namely individual factor and environment one. And the individual factor mainly includes demographic variables, individual physiological status, individual behaviour and individual psychological characteristics and state [8]. Generally speaking, domestic relevant studies mainly cover three aspects, namely demographic characteristics, health status and economy in terms of individual factors.

**Demographic characteristics:** Throughout the questionnaire survey on students in Gan-Nan Normal University and Gan-Nan Medical University, Li Zhe claims that demographic factors like gender, profession and grade are closely related with the self-efficacy of their physical exercise and exert important effects on their exercise [9]. On the survey about the state and factors affecting Chinese elderly people, Yang Fan, Pan Yue and Zou Zeyu point out the individual demographic characteristics has an obvious impact, among which age, marital status and educational level are the main ones [10]. Ye Sunyue and Guo Jing conclude that the physical exercise and its static behaviour of Chinese adults are influenced by social demographic factors like age, gender, income, educational level and household register [11].

**Health status:** on the basis of the socio-ecological model, Su Xiaohong, Li Bingguang and Tian Ying made an analysis and found health status was the important individual factor affecting physical exercise of the youth, and support from the government and the authenticity of implementing physical policy by schools were the most important factors concerning policy [12]. Yin Bo made an analysis on pedagogical factors among students and pointed out individual factors like gender, age, height, health status and genetic predisposition would be one of inborn conditions affecting their physical exercise experience and habit developing [13]. The study conducted by Song Xi among residents in Beijing turned out that the proportion of their taking part in exercise was positively correlated with health status, and self-evaluation of health status had an important influence on the physical exercise behaviour [14].

**Economy:** The study conducted by Chan Limei noted that factors like economic income and educational level would exert an effect on the consciousness of the elderly doing physical exercise in the urban areas. It found that the frequency of physical exercise of the elderly in urban communities with good economic conditions is relatively high, and the income level affects their enthusiasm to participate in physical exercise [15]. In this regard, Qian Hongying pointed out vocational and economic factors were the main factors [16]. Targeting urban citizens in three different economic areas in Shandong Province as study objects, Wei Na found that economic income limits the consumption of their physical exercise, and the

level of regional economic development and individual economic income were key factors affecting their physical behavior [17]. From the perspective of school and community collaborative guidance, Liu Tiesheng pointed out in his study aiming to strengthen mechanism of the youth's physical exercise that household economic capacity was one of the key factors and family leverages an active guidance and support role in exercise [18].

## CONCLUSION

In conclusion, it turns out from all the above relevant domestic studies that there are two problems, i.e. no national study and the lack of systematic analysis of factors for physical exercise. In the past, the objects often limited in specific age, profession, region and single gender, which was lack of comprehensiveness and typicality. Besides, most studies mainly examine the exercise behavior by focusing on individual factors. For the benefit of more precise national fitness policy, it is high time to deliver national survey to identify the factors for physical exercise.

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