

Study on the Current Situation and Improvement Strategies of Adolescents' Physical Fitness

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Abstract: This study examines the current state of youth physical fitness in China and proposes strategies for improvement. The methodology involves a comprehensive analysis of existing policies, infrastructure, and educational approaches to physical fitness. A multifaceted approach was used, including quantitative assessments of fitness levels in different regions and qualitative assessments of policy effectiveness. Data were collected through national surveys, physical fitness tests, and interviews with educators and policymakers. Results show that while there has been some progress in improving adolescents' physical health, significant disparities persist, particularly between urban and rural areas. Notable issues include high rates of nearsightedness, obesity, and early onset of chronic disease. The analysis also highlights gaps in the integration of physical education into broader education policies and the need for improved coordination among stakeholders. The study concludes with specific recommendations, including improved sports infrastructure in rural areas, more effective physical education programs, and increased public awareness of nutritional health.

Keywords: Current situation, improvement strategies, adolescents, physical fitness

1. INTRODUCTION

The Outline for Building a Sports Power clearly states that by 2050, we will comprehensively build a modern sports power. This goal demonstrates the key role of sports in the great rejuvenation of the Chinese nation. Sports not only reflect the national spirit, but also mark the overall strength of the country and the health level of the people. As an important part of the cause of socialism with Chinese characteristics in the new era, the comprehensive development of sports will become a symbolic cause for the great rejuvenation of the Chinese nation. The healthy growth of young people is the foundation of building a sports power. Young people represent the future of the country and the hope of the nation, and their physical fitness and health directly affect the long-term development of the country. Therefore, adolescent health issues have always been a focus of the party and the country. Whether at the policy level or in actual operations, the country has been promoting various measures to build a sports power to improve the overall health level of young people. However, China is a country with a large population and a vast territory. There are significant differences in the economic development level and living conditions of various regions, which have varying degrees of impact on the health of adolescents. Especially in rural areas, adolescents' physical health problems are more prominent due to relatively lagging economic conditions, insufficient infrastructure construction, and shortage of educational resources. Rural adolescents face many challenges in terms of opportunities for physical activity, nutritional intake, and health education. These problems not only affect their physical fitness, but also restrict their all-round development. In order to solve these problems, national and local governments need to take a series of targeted measures. First, the construction of sports infrastructure in rural areas should be strengthened, the configuration of sports venues and equipment should be improved, and the conditions for young people to participate in sports activities should be improved. Secondly, it is necessary to promote and improve physical education, especially popularize scientific physical education courses in rural schools, and cultivate young people's interest in sports and good sports habits. In addition, attention should also be

paid to popularizing nutrition and health knowledge, improving the dietary structure of teenagers, and improving their overall health.

At the same time, all sectors of society should also actively participate in the work of building a sports power to create a good atmosphere in which the whole society pays attention to and promotes the physical health of young people. Through the joint efforts of the government, schools, families and society, we will gradually narrow the health gap between urban and rural areas, achieve an overall improvement in the physical health of adolescents, and lay a solid foundation for the construction of a sports power. Only in this way can China truly achieve its grand goal of building a modern socialist sports power by 2050 and further promote the great rejuvenation of the Chinese nation.

Over the years, the joint efforts of the government, schools and all sectors of society have alleviated the physical health problems of adolescents to a certain extent, and the overall physical condition of adolescents has shown a positive trend. Governments at all levels have significantly increased youth sports participation and health awareness through measures such as promoting sports activities, improving school sports facilities, and implementing health education. In addition, all walks of life have also actively participated in providing help and guarantee for the healthy growth of young people through charity activities, volunteer services and resource support. The education department has also continued to reform and also improve physical education courses, improving the time and quality of physical activities for young people during school. The implementation of these measures has undoubtedly had a positive impact on improving the physical health of young people. However, despite some progress, adolescents still face serious challenges in terms of physical health. For example, the rate of myopia continues to be high and has become a common public health problem. Prolonged close-range use and lack of outdoor activities have caused a large number of teenagers to suffer from vision problems. Obesity rates have also not seen a significant decline. Modern lifestyle changes and unhealthy eating habits have left many teenagers facing the problem of being overweight. What is even more

noteworthy is that the age of onset of diseases such as hypertension, diabetes, and fatty liver is gradually decreasing, and these diseases that originally mainly affected the adult population are gradually penetrating into the adolescent population. Scientific research and statistics show that these health problems not only affect the physical development of teenagers, but may also have long-term negative effects on their future quality of life. To solve these problems, we need to adopt more precise and comprehensive countermeasures. First of all, it is necessary to further improve and strengthen youth physical education, promote diversified sports activities, stimulate young people's interest in sports, and enhance their physical fitness. Secondly, we must strengthen the popularization of nutritional knowledge in schools and families, promote healthy eating habits, and control the intake of junk food. The government should further improve the health monitoring system and conduct regular physical examinations for teenagers to detect and intervene in possible health problems early. At the same time, paying more attention to the mental health of teenagers and reducing health problems caused by excessive stress are also aspects that cannot be ignored. All sectors of society, including the media, businesses and non-governmental organizations, should actively participate in and promote social publicity and resource investment in adolescent health. By building a good atmosphere in which the whole society pays attention to the physical health of teenagers, a joint force can be formed to jointly promote the improvement of the physical health of teenagers. Only through multi-party collaboration and sustained efforts can we effectively respond to current and possible future health challenges and lay a solid foundation for the comprehensive and healthy development of the adolescents. In the Figure 1, the adolescent health is reflected in the Figure 1 from WHO.



Figure. 1 The Adolescent health - World Health Organization (WHO)

2. THE PROPOSED METHODOLOGY

2.1 The realistic dilemma of promoting the health of young people through the integration of sports and education

Our country's youth health promotion policy has undergone three important changes. The first change occurred in the early days of the socialist construction, when the policy emphasized the educational goals of "strengthening the body" and "enhancing physical fitness", focusing mainly on the physical health and physical fitness of young people. The second change occurred after the reform and opening up, when the policy proposed a "big health" school physical education strategy, aiming to promote the overall health of young people through a systematic physical education curriculum. During this period, the policy not only focused on the improvement of physical fitness, but also included the development of mental health and social adaptability. The third change was the "comprehensive education" sports and education integration health strategy proposed in the new era,

with the aim of comprehensively improving the physical and mental health and comprehensive quality of young people by deeply integrating sports with education. However, despite the continuous updating of policies, there are still some problems in actual implementation, especially in the physical health assessment system. At present, the physical health assessment system still has the phenomenon of separation between "physical" and "education". The traditional assessment system only uses physical tests and cultural scores as evaluation criteria. This practice separates the relationship between physical education and cultural education, fails to reflect the unity of health assessment and cultural improvement, and distorts the true value of sports education. This separate evaluation system has led to a disconnect between physical education and cultural education, and cannot fully reflect the health level and all-round development of young people. In addition, there are also deficiencies in the coordination mechanism during policy formulation and implementation. The traditional "top-down" and "bottom-up" policy formulation and implementation models lack an effective intercommunication supervision system, which makes it difficult to implement youth health promotion policies. The effectiveness of policy implementation is often affected by information asymmetry, different interests and different implementation attitudes between policy makers and implementers. Due to the lack of close connection between the mechanism and program of policy implementation, it is difficult for the guiding health promotion policy at the macro level to be effectively implemented at the grassroots level. The main participants in health promotion have errors in their definitions of physical fitness and health, and cognitive differences have further led to a lack of good public support and awareness of the policy. Many families and communities do not support youth health promotion enough, and generally believe that this is the main responsibility of the school, ignoring the important role of families and communities in the healthy development of young people. This situation has resulted in the failure to fully meet the policy needs for youth health promotion, affecting the actual effect and promotion of the policy. Therefore, in order to better promote youth health, it is necessary to strengthen the coordination between policy formulation and implementation, establish a sound intercommunication supervision mechanism, and ensure that the policy can be implemented smoothly. At the same time, we need to enhance the public's awareness and support for promoting youth health, increase the participation of families and communities, make health promotion policies a joint effort of the whole society, and promote the overall improvement of the youth health. Only through multi-faceted cooperation and continuous improvement can we truly achieve the policy goals of promoting youth health and provide strong guarantees for the comprehensive growth and development of young people.

2.2 The suggestions on digital intelligence empowering the promotion of physical health of young people

The digital society is an era characterized by the widespread application and continuous development of digital information technology. At the core of this form of society is the support of technologies such as artificial intelligence, blockchain, cloud computing, big data, edge computing, and the Internet of Things. These technologies not only support the operation of society, but also make data mining, storage, analysis, and decision-making processes more efficient and intelligent. By integrating these technologies, the digital society has formed a

more advanced social model in which the value of data is fully mined and utilized, providing accurate decision-making support in various fields and promoting intelligence and optimization at all levels of society.

Adolescents have significant individual differences in body shape, physiological functions, physical fitness, and health conditions that affect their exercise capacity and nutritional needs. Therefore, personalized intervention plans need to be formulated according to each individual's physiological characteristics, including appropriate exercise intensity, type and frequency, as well as personalized dietary structure and nutritional supplements. In addition, adolescents are in a rapidly developing psychological stage, with significant differences in cognitive abilities, emotional experiences, social interaction skills, and self-perception. Personalized intervention should not only focus on improving physical quality, but also provide support services such as the psychological counseling, emotion management and stress reduction to help adolescents cope with the psychological challenges and maintain psychological balance. At the same time, adolescents' lifestyle choices, such as work and rest schedules, time spent using electronic devices, and time spent outdoors, as well as their family, school, and community environments, have an important impact on physical health. Therefore, intervention programs should take these factors fully into account and design interventions that are consistent with personal living environments and habits in order to improve the acceptability and compliance of the intervention and thereby effectively promote the overall healthy development of adolescents.

2.3 The WHO school health services and physical fitness monitoring related policies

School health services refer to the various health support services provided by schools to their members, including on-campus health services and off-campus health services in partnership with schools. The goal of these services is to provide high-quality, evidence-based, comprehensive health support to students and staff. Comprehensive school-based health services are a core component of health-promoting schools. Health-promoting schools are committed to creating safe and healthy learning and living environments by continuously improving their own capacity. Such schools promote health education and practice within the school community through whole-school participation to ensure health and achieve positive educational outcomes. Health-promoting schools not only focus on improving material conditions, but also pay attention to cultivating social, emotional and psychological states to comprehensively improve the health level of teachers and students. To enable more schools to become health-promoting schools, the World Health Organization (WHO) has issued a series of guidelines to promote the practical application of this concept. These guidelines provide detailed plans and measures to help schools implement the various requirements of health promotion. In terms of monitoring and evaluating students' physical fitness, the WHO has proposed a constructive plan that emphasizes the systematic assessment and continuous monitoring of students' health status in order to promptly identify and solve health problems. These measures will not only help improve students' overall health, but also provide schools with a scientific basis for optimizing health services and educational strategies, thereby creating a better learning and growth environment for students.

3. CONCLUSION

Future research should focus on evaluating the long-term impact of implemented strategies on adolescents' health and fitness. It is critical to investigate how integrated approaches that combine physical education with comprehensive health interventions can be optimized. Further studies should examine the effectiveness of personalized health interventions, taking into account individual differences in physical and psychological development. In addition, research should assess the role of digital technologies in monitoring and improving adolescent health. Increased collaboration among government agencies, educational institutions, and community organizations will be essential to address the persistent challenges and disparities in the adolescent physical fitness. Future initiatives should aim to build on current evidence to foster an environment in which all adolescents can achieve optimal health and well-being.

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