

Research on the U.S. health and fitness program and its implications

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Abstract: This study centers on the U.S. Presidential Youth Fitness Program (PYFP) and reviews the development of the U.S. health and fitness program. The results indicate that health and fitness education in the U.S. involves health assessment as well as educational and motivational tools that support teachers and students in adopting an active lifestyle. The PYFP serves as a model for health and fitness education, with three core areas: health assessment, professional development, and cognitive motivation. It is suggested that China should implement and establish the concept of differentiated health and fitness for adolescents, emphasize the cultivation of physical literacy in physical activities, and develop a sound governance system and capacity for youth sports curricula.

Keywords: Health and Fitness, Adolescents, School Physical Education, United States

1. Introduction

For a long time, improving physical fitness has been regarded as the primary goal of physical education. In recent years, the inevitable connection between regular physical activity and health status has become clearer. This has attracted increasing attention from medical groups, public health organizations, non-profit organizations, and other domestic and international bodies.

2. Research on the U.S. health and fitness program

One of the most significant developments in the field of health-related fitness is the establishment of the U.S. Presidential Youth Fitness Program (PYFP). This program is a collaborative effort by the President's Council on Fitness, Sports, and Nutrition (PCFSN), the Cooper Institute, the American Alliance for Health, Physical Education, Recreation, and Dance (AAHPERD), the Centers for Disease Control and Prevention (CDC), the Amateur Athletic Union (AAU), and the National Foundation for Fitness, Sports, and Nutrition (NFFSN). Health and fitness education involves health assessment and educational and motivational tools that support teachers and students in adopting an active lifestyle. The three core areas of the PYFP are health assessment, professional development, and cognitive motivation [1]. In terms of health assessment, the PYFP utilizes the Fitnessgram program, which was developed by the Cooper Institute. The connection between the Fitnessgram program and the PYFP has significantly expanded the reach of the program.

The Fitnessgram test items and their related standards are key components of the PYFP. Schools across the United States can now obtain them for free and promote them globally in the name of Olympic values [2]. The additional Fitnessgram v10.0 software and related website hosting services provide schools with a comprehensive guidance plan for tracking, monitoring, promoting physical activity, and improving the physical fitness of adolescents. In addition to the Cooper Institute, other partners of the PYFP also play important roles. The American Alliance for Health, Physical Education, Recreation, and Dance brings necessary professional educational knowledge to the program. Through the expansion and reward system of the Amateur Athletic Union, the efforts of schools and students can also be recognized. The Centers for Disease Control and Prevention provides support by overseeing the program's assessment. The program's goal is to cover 90% of schools nationwide by 2020 [3]. The National Foundation for Fitness, Sports, and

Nutrition is committed to ensuring financial resources to support the supply of additional resources, such as the Fitnessgram v10.0 software, teacher training, and student physical education awareness programs.

In addition, various institutions are working hard to achieve comprehensive strategic cooperation aimed at increasing physical activity among adolescents and promoting healthy lifestyles. For example, the Centers for Disease Control and Prevention and the American Alliance for Health, Physical Education, Recreation, and Dance have released guidelines and strategies to establish comprehensive school physical activity programs. The goal is to develop physically fit students who participate in the nationally promoted 60 minutes of daily physical activity, learn knowledge and skills, and have the confidence to maintain lifelong health [4]. This program was jointly initiated by the First Lady of the United States, Michelle Obama, the President's Council on Fitness, Sports, and Nutrition, the American Alliance for Health, Physical Education, Recreation, and Dance, and the Alliance for a Healthier Generation to implement the long-term goals of the President's Council on Fitness, Sports, and Nutrition. The program helps schools create a positive environment where students can engage in 60 minutes of daily physical activity through quality physical education and physical activities before, during, and after class [5].

The National Football League (NFL) Foundation, in collaboration with the National Dairy Council and the American Heart Association, has also developed a comprehensive school-based program. These programs have increased adolescents' awareness of the importance of physical activity and provided practical assistance to schools to create positive changes. Organizations such as the Alliance for a Healthier Generation and the Healthy Children's Action Organization have established national training and support networks to help schools create healthier environments. The visibility and accessibility of these and other programs have strengthened the momentum of the U.S. physical activity initiatives.

As mentioned earlier, in recent years, the medical and public health communities have increasingly focused on physical activity. The Institute of Medicine (IOM) has recently released two important reports to advance research and promotion efforts in youth fitness. The first report, titled "Youth Fitness Measures and Health Outcomes," focuses on recommending health-related test items for use in the National Youth Fitness Survey. The committee reviewed the evidence linking youth fitness factors to health outcomes and recommended the implementation of fitness testing programs in schools [6]. The second report, titled "Student Sports: Bringing Physical Activity and Sports to Schools," reviewed the relevant literature on the current state of physical activity and sports in the school environment. The report emphasized the role of physical activity in improving student learning and pointed out that physical education and school sports programs contribute to creating a healthier school environment [6].

The integration and synergy among the various program developments have created many opportunities but also raised some confusion about how to interpret the different programs and how to utilize resources effectively. These documents aim to summarize the key concepts and principles shared by these initiatives, with a particular emphasis on physical fitness assessment and health-related fitness education, as they are the core of the U.S. Presidential Youth Fitness Program and the recommendations made by the Institute of Medicine. The implementation of the Presidential Youth Fitness Program has created an unprecedented opportunity for coordinated planning between public health and educational goals. It has resolved the challenge of multiple organizations providing multiple tests and has coordinated content related to health-related fitness education, school activity planning assessment, teacher evaluation, and potential development [7]. This coordination is facilitated by the consensus reached on common terminology and the fundamental principles of physical education, physical fitness assessment, teacher development, and health-related fitness education. This section primarily provides an in-depth analysis of the scope of research and related concepts in health-related fitness.

3. Advances in functional adaptation of health-related fitness in the United States

Functional health-related fitness is an important aspect of health and fitness education. It refers to the ability of an individual to perform common physical activities at home, at work, or in a sports setting. If adolescents can "complete their studies, travel to and from school, and participate in leisure activities without fatigue, and respond to emergencies, then they can also safely and without fatigue complete other daily tasks" [3]. The American Alliance for Health, Physical Education, Recreation, and Dance (AAHPERD) has always emphasized the importance of functional health-related fitness training and maintaining health

through exercise, especially for the elderly. Developing and maintaining good physical fitness is a top priority in health and fitness education, but functional health-related fitness is equally important. The health-related fitness tests used in health and fitness education may differ from those used for research or national monitoring. The U.S. Youth Health and Fitness Survey Project only selects the most convincing field test items for investigation [3].

The focus of school physical education is to provide adolescents with the knowledge and skills needed for a lifetime of active and healthy living. Therefore, the emphasis of school health and fitness testing is whether it can meet the needs of assessing individual health and fitness and promote health and fitness education. Thus, it is necessary to reasonably select available items from fitness programs. Since its establishment, the Fitnessgram program has had a clear mission to "promote lifelong health and fitness education and enhance physical exercise activities and other health-related behaviors" [8]. Therefore, the test items used in the Fitnessgram program can be effectively managed in schools, and they are related to the health of individuals during their formative years and later life. The daily use of health and fitness is an important issue that education needs to consider.

In the U.S. Youth Health and Fitness Survey Project, pacemakers and light treadmills or cycle ergometers are used to test cardiorespiratory endurance and BMI values. In health and fitness education, pacemakers and long-distance running are used to measure cardiorespiratory endurance, and BMI values are used to measure body composition. For muscle strength training, grip strength and standing long jump are recommended. The U.S. Youth Health and Fitness Survey Project has selected these tests, believing that they are suitable for educational testing. In addition, sit-ups, push-ups, and sit-and-reach tests are also considered suitable for health and fitness. The back extension test has also been included in the Fitnessgram program to help students understand the importance of core strength training in functional health and fitness, which involves exercising the strength and endurance of the waist and back muscles, and to reduce the risk of back pain in their later lives. Although the evidence so far does not support the use of this test to measure the risk of back pain in adolescents, it remains a useful test item in health and fitness education.

4. Implications for the development of physical health in Chinese adolescents

4.1. Implementing and establishing the concept of differentiated health in adolescents

In postmodern theory, differentiation is the most prominent core reflection. Differences are mainly reflected in the ways of application and understanding. Therefore, in the comprehensive training of adolescents' physical health, it is necessary to comply with the national physical education curriculum requirements while also recognizing the differences in political, economic, cultural, and educational development across regions. It is essential to fully utilize regional advantageous resources to develop rational curriculum plans, highlight regional characteristics, and further enhance the core competitiveness of regional courses. Based on the current state of adolescent physical education, it is necessary to emphasize the core position of differentiated teaching on the basis of traditional teaching models, clarify the differences between individuals, fully utilize local advantageous resources, and maximize the development of curriculum education. It is also important to identify the actual needs of contemporary college students, respect the differences among them, and appropriately adjust the curriculum settings in line with their era-specific backgrounds, personality traits, and values to ensure the rationality of the educational model, thereby achieving the goal of promoting the physical health development of adolescents [9].

4.2. Emphasizing the cultivation of physical literacy in physical activity

The concept of physical literacy emphasizes maintaining an individual's level of physical activity, which can help enhance self-confidence, comprehension, and cognitive abilities to a certain extent [10]. In China, the concept of physical literacy is still in the theoretical stage of university physical education curriculum reform and has a significant gap between theory and practical implementation [11]. From the perspective of adolescent physical health theory, the value of physical education courses lies in helping adolescents enhance their physical fitness, learn specialized skills, and achieve cultural dissemination through sports training, thereby improving their physical literacy. Given the current state of adolescent physical health development, the design of physical education curricula is crucial. Students can also independently engage

in non-traditional sports courses and exchange sports techniques with each other during extracurricular time to improve their physical fitness levels. As long as adolescents have a strong interest in sports, enhancing their physical health through these recreational activities is only a matter of time. Currently, sports such as roller skating, street dance, rock climbing, and skateboarding are widely recognized by adolescents as fashionable sports. However, due to the scarcity of teaching resources, it is not yet realistic to establish specialized sports courses. Nevertheless, teachers should actively utilize existing resources to maximize students' enthusiasm for sports, help them explore on their own, and thereby improve the level of physical literacy among adolescents.

4.3. Improving governance in adolescent physical education

Modern adolescent physical education curricula demand reforms in curriculum design, content selection, scope of application, and developmental concepts, emphasizing the core position of institutional choices. The essence of curriculum management reform is to liberate productive forces, enhance the efficiency of educational resource utilization, place high importance on the core status of educational endeavors, and set the ultimate goal of education as improving students' physical literacy. In traditional teaching models, teachers are the main body in the teaching process, while modern curriculum management reform requires physical education teachers to transform their roles [10]. This role transformation involves legal and institutional interventions, covering all aspects of university physical education curricula. Even in the organization of sports competitions, teachers need to coordinate the relationships between referees and sports competition organizers, clarifying students as the main body of sports competitions [11]. Physical education teaching evaluation refers to the comprehensive assessment of students' performance in social and campus sports activities, which can help understand the effectiveness of curriculum skills teaching and thereby clarify the role of curriculum education in improving students' physical literacy. Based on the current state of physical education curriculum reform and development, teachers need to provide comprehensive guidance for students' physical education teaching, thoroughly implement the physical education curriculum system, and develop scientific and rational study plans according to students' actual situations to achieve the goal of improving students' physical literacy. In the process of organizing teaching, teachers should focus on cultivating their own professional skills to meet students' individual needs [12].

5. Conclusion

This paper, through an in-depth study of the U.S. Presidential Youth Fitness Program (PYFP) and its related health and fitness initiatives, has revealed the rich experience and innovative practices of the United States in the field of adolescent health and fitness education. The findings indicate that health and fitness education in the U.S. not only focuses on health assessment but also supports teachers and students in adopting an active lifestyle through educational and motivational tools. The PYFP, as a model of health and fitness education, provides a solid foundation for the comprehensive development of adolescents with its core areas—health assessment, professional development, and cognitive motivation.

The successful experiences of the United States in health and fitness education offer valuable insights for the development of physical health among Chinese adolescents. First, China should implement and establish the concept of differentiated health for adolescents, fully considering the differences in political, economic, cultural, and educational development across regions, leveraging local advantageous resources, and developing rational curriculum plans to enhance the core competitiveness of courses. Second, the cultivation of physical literacy in physical activities should be highlighted, helping adolescents to strengthen their physique, learn professional skills, and achieve cultural dissemination through physical education courses, while also encouraging students to engage in independent learning and sports activities. Finally, it is necessary to establish and improve the governance system and capacity for adolescent physical education curricula, improve the efficiency of educational resource utilization, clarify the role transformation of physical education teachers, and meet the individual needs of students.

Adolescents are the future and hope of the nation, and their physical health is crucial to the country's long-term development. By drawing on the successful experiences of the United States and combining them with China's actual situation, we can promote the reform and development of adolescent physical health education. This not only helps to improve the physical fitness of adolescents but also cultivates the next

generation with healthy bodies and active lifestyles for society. In the future, China should further strengthen research and practice in adolescent physical health education, explore health and fitness education models suitable for the local context, and create better conditions for the comprehensive development of adolescents.

6. References

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