

The Necessity of Wuji Ball Entering Campus from the Perspective of Youth Sports Promoting Health

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Abstract: Currently, adolescent health is facing major challenges such as spinal curvature, myopia, and obesity. The “Integration of Health and Physical Education” is vigorously advocates for the use of scientific exercise methods to intervene in adolescent health, advancing the health frontiers for adolescents. Wuji ball, as an emerging national fitness sport, has been incorporated into the curriculum of many universities, including Peking University and the University of Science and Technology of China. This study points out the difficulties faced in the physical and health development of adolescents and conducts an in-depth analysis of the numerous benefits of wuji ball for the physical and mental development of adolescents and the inheritance of traditional Chinese culture. From the perspective of promoting adolescent health, it emphasizes the multiple important roles that schools play in this regard, discussing the necessity and practical value of introducing wuji ball into campuses. In addition, drawing from effective models in provinces such as Jiangsu and Shandong, a series of necessary measures and strategies for implementing wuji ball into campuses are proposed. It is believed that wuji ball holds significant importance for the healthy growth of adolescents and has profound implications for achieving the goal of a healthy China strategy.

Keywords: Youth Sports; Health; Wuji Ball; Schools; Necessity

1. Introduction

Teenagers are the future of the motherland and the hope of the nation. Our country attaches great importance to the healthy growth of teenagers and is deeply committed to

implementing the educational concept of “health comes first.” In recent years, health issues such as “scoliosis,” “myopia,” and “childhood obesity” among teenagers have become increasingly prominent, undoubtedly posing a hidden danger. How to promote teenagers’ health through scientific exercise? How to shift the focus of teenage health to an earlier stage? These questions deserve deep consideration from the entire society. The “Healthy China 2030 Plan” emphasizes the need to “strengthen the integration of sports and medicine and non-medical health interventions and organically integrate health-related curriculum teaching with social life, as well as organically integrate classroom teaching with extracurricular practical activities [1].” The “Outline of Building a Sports Power” proposes to “adhere to the concept of overall health, shifting the focus from ‘treating the sick’ to ‘preventing illness’” and to “promote the improvement of teenagers’ physical literacy and the adoption of healthy lifestyles as important components of school physical education [2].” In the “Opinions on Comprehensive Strengthening and Improving School Physical Education Work in the New Era,” it is proposed to “teach students scientific exercise and health knowledge [3].” The “Opinions on Building a Higher-Level National Fitness Public Service System” points out the need to “develop and implement action plans to promote exercise for health” and “cultivate lifelong exercisers.” In the “Opinions on Comprehensive Strengthening and Improving School Health Education Work in the New Era,” it is necessary to “prevent and control the occurrence and development of myopia, obesity, abnormal spinal curvature, etc. among students” and “include spinal health examinations in the physical examination items for primary and secondary school students [4].” At the 2024 Two Sessions,

it was mentioned to “research and introduce scientific sports intervention methods to effectively solve problems such as myopia, obesity, scoliosis, and mental health issues among teenagers.” Looking back to April 2020, the National Institute of Sports Medicine issued a medical report titled “Effectiveness Study of Wuji ball Exercise Intervention for Chronic Spinal and Shoulder Pain,” which believes that Wuji ball exercise can effectively intervene in shoulder, neck, and back ailments. In 2022, the Education Department of Shandong Province officially established the Shandong Provincial Youth Spinal Health Promotion Center at Shandong Sports Institute, constructing a multi-party collaborative management model for youth health promotion including “families, schools, hospitals,” etc [5]. Wuji ball exercise, as a newly promoted national fitness activity, has characteristics such as targeting, convenience, standardization, and zero harm, making it very suitable as a campus fitness activity. Schools, as key places for nurturing teenagers, bear the important responsibility of promoting teenage health. Currently, schools such as Peking University, University of Science and Technology of China, and Shanghai University of Visual Arts have introduced Wuji ball courses, providing developmental experiences for Wuji ball’s entry into campuses. Given this background, schools should deeply consider the value and significance of integrating Wuji ball into the physical education curriculum, thereby contributing to the healthy growth of teenagers.

2. Multiple Manifestations of Wuji ball Motion

2.1 Wuji Ball Motion is a New Form of Motion

Wuji ball is a new national fitness project officially promoted by the state, and it is a new form of Chinese-style sport. The exercise uses a special sphere as a sports tool and adopts a unique “winding and turning” to carry out a whole-body coordinated exercise. It is a new way of health preservation integrating fitness, heart cultivation, and mental puzzles [6]. It conforms to the fast pace of modern people and meets the new needs of modern people’s health. It is an innovative healthy sports project that is easy to get started and learn,

happy and interesting. It is suitable for a wide range of people. Through the wuji ball movement, you can feel the power of innovation.

2.2 Wuji Ball Sports are Replete with Educational and Cultural Elements

In Chinese culture, the circle is an important spiritual prototype. It has a very close relationship with the Chinese people’s cosmic consciousness and life sentiment. By practicing the wuji ball, draw a three-dimensional yin and yang fish picture in front of the chest, and use the circle movement to understand the broad and profound Chinese culture. Culture is a deep understanding of the circle thinking of the unity of opposites. Practice the wuji ball and taste the round culture. Secondly, through the wuji ball movement, you can feel the charm of traditional Chinese culture. To improve the country’s cultural soft power, we must strive to demonstrate the unique charm of Chinese culture.[7] The creation of wuji ball sports combines ancient guidance, Qigong and Chinese meridian theory. It contains rich Chinese traditional culture, especially the essence of traditional health preservation culture. It is a technical Chinese culture, so that everyone can fully experience Chinese culture. The inherent charm of culture enhances the sense of identity and cultural self-confidence in national culture.

2.3 The Fitness Effect of Wuji Ball Exercise

The wuji ball is a new type of healthy exercise mode that adopts the “winding and turning” circle exercise mode, and its fitness effect is remarkable and very effective. The National Institute of Sports Medicine has also issued relevant research reports. The principle of this movement is like a snake wrapping an object. By continuously twisting the sphere for multi-dimensional movement, the shoulders and backs can be stretched to the maximum extent; At the same time, by activating the abdomen, waist, and hips, the spine can continue to perform “S”-shaped movements, and the joints of the whole body can also do circular movements, to achieve the purpose of loosening the shoulders and rotating the spine, self-massaging the internal organs, and then improving the circulation system. It is particularly worth mentioning that the wuji

ball movement is a movement with spinal movement as the core. The spine is an important pillar of the human body. For teenagers, puberty is a rapid stage of bone growth and development. If scoliosis occurs and cannot be intervened in time, it will be difficult for the spine to support the body weight normally in adulthood, and it is prone to long-term and repeated back pain problems. What's more serious is that if the spinal cord nerves are compressed, symptoms such as numbness, weakness, and difficulty walking in both lower limbs will also appear. For those adolescents with severe scoliosis, the scoliotic spine will also compress and deform the thorax, thereby squeezing the normal heart and lung development space, causing irreversible damage to heart and lung function, and seriously affecting the daily activities of children and adolescents and quality of life.

3. The Dilemma of the Healthy Development of Youth Sports and the Enlightenment of Domestic Experience

3.1 Development Dilemma

Firstly, adolescents are facing the challenge of adolescent “idiopathic scoliosis.” In 2022, the head of the National Working Group for the Prevention and Control of Scoliosis in Children and Adolescents stated in a media interview that it is estimated that the incidence of scoliosis among primary and secondary school students in China is between 1% and 3%, with over 5 million cases of scoliosis and an annual increase of about 300,000 cases. The incidence of adolescent scoliosis in China is as high as 20%, with a general male-to-female ratio of approximately 1:7[8]. Secondly, adolescents are trapped in the “myopia dilemma.” In the second half of 2018, the National Health Commission, together with the Ministry of Education and the Ministry of Civil Affairs, conducted a comprehensive screening of 1,033 kindergartens and 3,810 primary and secondary schools nationwide, covering a total of 1.1174 million individuals. The survey results showed that the overall situation of myopia among children and adolescents in China is worrying, with a more prominent problem of myopia in younger age groups, particularly in primary and junior high school stages, which are the key stages for myopia prevention and control in China.

Additionally, adolescents are facing the “obesity shackle.” According to the World Health Organization, one in every eight people worldwide is obese. Since 1990, adolescent obesity has tripled. In 2022, over 390 million children and adolescents aged 5 to 19 were overweight, with 160 million suffering from obesity. Moreover, the “Report on Nutrition and Chronic Diseases among Chinese Residents (2020)” shows that the overweight and obesity rate among adult residents in China exceeds 50%, while the overweight and obesity rate among children and adolescents aged 6 to 17 is close to 20%, and the overweight and obesity rate among children under 6 years old reaches 10%. These issues severely affect the physical health and future development of adolescents and require high-level attention from the entire society.

3.2 Reference from Domestic Experience

3.2.1 “Jiangsu model”: drawing a blueprint for students’ physical health

The government actively promulgates relevant documents on promoting students’ physical health; The school strictly abides by the national curriculum standards, offers full physical education classes, and establishes a funding guarantee mechanism for students’ physical health promotion.

3.2.2 Shandong “rizhao experience”

Promote work through top-level design, focus on departmental coordination, and build a multi-party youth health promotion management model. In 2022, the Shandong Provincial Department of Education officially established the Shandong Provincial Youth Spine Health Promotion Center at the Shandong Institute of Physical Education, and combined hospitals, enterprises, schools, etc. entered the campus.

3.2.3 Shanghai’s “combination of sports, education and medicine” model

Emphasis should be placed on the introduction of technical and knowledge resources from colleges and universities. For example, the Shanghai University of Finance and Economics has cooperated with Zhejiang enterprises to bring together experts in sports, education, medical care, psychology and other fields [9]. In addition, it also creates a convenient and safe artificial intelligence health service model.

4. Strong Linkages between Schools and Adolescent Health

Schools are important places to cultivate young people and are of great significance in promoting young people's health. "Wuji ball into Campus" is the established goal of the National Wuji ball Promotion Committee. Wuji sports entering the campus can help young people in the era of intelligence prevent, improve and repair sub-health problems such as neck, shoulder and waist discomfort, and provide a new method of active health management; At the same time, this is also the integration of traditional culture and school physical education. This combination not only opens up a new way for the inheritance and promotion of traditional culture, but also injects profound cultural heritage into the development of physical education, enhancing the cultural self-confidence and national self-confidence of young people pride [10]. In addition, the introduction of wuji ball sports into the campus is of great significance to the implementation of complete physical education courses. School sports should educate people with high quality and should not be utilitarian [11], enrich the content and form of physical education courses, improve young people's interest and participation, and cultivate lifelong sports awareness, and wuji ball sports has low requirements for venues and equipment, which is convenient for promotion, and alleviates the problem of limited sports venues and equipment to a certain extent. All in all, schools are closely related to the health of young people, which not only helps to promote the physical and mental health of young people, but also points out the direction for the development of wuji ball.

5. Necessity of Wuji Ball Entering Campus

5.1 Solve the Problem of Healthy Growth of Young People

During adolescence, which should be a golden period for improving physical health, Chinese teenagers are currently facing many health problems. For example, they often sit with their legs crossed, excessively rely on electronic devices, rarely leave home after returning from school, and lack physical exercise. These unhealthy habits have led to issues such as scoliosis, increased obesity rates,

and the highest myopia rate in the world. Currently, scoliosis, vision problems, and obesity have become the three major factors affecting the physical and mental health of teenagers, and urgently need to be addressed [12].

5.2 Shaping Youth's Lifelong Sports Ability

With its lifelong, applicable to all ages, zero injury and other outstanding characteristics, the wuji ball fully shows that it is extremely suitable for life as a lifelong sports skill. There is no age limit for wuji ball sports, no matter what age group you are in, people can participate in it. Moreover, this sport can well adapt to the needs of various stages such as the growth of teenagers, the work of adults, and the life of the elderly. Because of this, the school's wuji ball course is like opening the door for young people to health, and it also illuminates the way forward for the shaping of young people's lifelong sports ability. Wuji ball sports bring lifelong benefits to teenagers, and its impact is far-reaching and lasting.

5.3 Cultivate Young People's Awareness of Cultural Self-Confidence

Traditional sports serve as a vehicle for shaping and strengthening cultural identity. Through the practice of wuji ball sports, people can experience the allure of traditional Chinese culture. Director Qian from Peking University's Department of Physical Education praised its combination of traditional martial arts with innovative and fashionable concepts. Against the backdrop of cultural confidence, integrating wuji ball sports into the curriculum is natural. The creation of wuji ball sports combines ancient guiding principles, breathing exercises, and theories of meridians, embodying the rich and profound essence of Chinese traditional culture and traditional health preservation culture. It can be regarded as a technological form of Chinese studies, enabling adolescents to appreciate the charm of Chinese culture and enhance their sense of identity and confidence in their ethnic culture.

5.4 Enrich the Content of Youth Physical Education Courses

In 2018, the "Implementation Plan for Comprehensive Prevention and Control of Myopia in Children and Adolescents" issued by eight departments including the Ministry of

Education clearly pointed out that schools should strengthen school hygiene and health education, actively develop and expand health education curriculum resources, and at the same time strengthen physical education classes and extracurricular exercise; In 2020, the “Opinions on Deepening the Integration of Sports and Education and Promoting the Healthy Development of Youth” issued by the Ministry of Education of the General Administration of Sports also emphasized that it is necessary to establish the educational concept of health first and ensure that all students are offered full physical education classes; In addition, it is necessary to improve the youth sports event system, so that the education and sports departments can jointly integrate school competitions; Furthermore, it is necessary to strengthen the construction of traditional sports schools. The introduction of the wuji ball curriculum in schools can just enrich and enrich the youth sports curriculum, respond to the national policy call to strengthen school sports work , and then effectively promote the healthy development of youth physique.

6. Measures to Promote the Wuji Ball into the Campus

Enrich the source of policies and promote the introduction of youth physical health policies [13]; It is also necessary to strengthen the top-level design, pay attention to departmental coordination, and promote the multi-faceted linkage between the Department of Education and the “family school doctor”.

The school actively promotes the application of the Wuji ball class head, establishes Wuji ball sports courses, and enriches the course content of the sports department.

Pay attention to the talent reserve of Wuji ball sports, strengthen cooperation with universities, and regularly hold national Wuji ball teacher and coach training and referee training.

The school establishes a funding guarantee mechanism for students’ physical health promotion work, and builds a high-quality service system.

The school is brave in innovation and actively builds a high-quality platform for youth Wuji ball events.

Intensify the publicity of the Wuji ball sport, use multimedia, Douyin, station b, etc. as

carriers, and make full use of new technologies such as big data and intelligence.

7. Conclusion

The health of adolescents is crucial to the future development of the nation. Schools, as key institutions for nurturing adolescents, bear the important responsibility of promoting their healthy growth. Wuji ball, as an emerging form of fitness with Chinese characteristics, has become one of the effective ways to address current health issues among adolescents, owing to its unique exercise patterns and profound cultural connotations. Introducing Wuji ball into schools can not only help improve the physical health of adolescents, and effectively prevent and alleviate problems such as scoliosis, myopia, and obesity, but also cultivate their lifelong awareness of physical education and cultural confidence, promoting their comprehensive development of body and mind. To promote the popularization of Wuji ball in schools, concerted efforts from various sectors of society are required. Government departments should strengthen policy guidance and support, schools should actively incorporate Wuji ball-related curriculum content and focus on the development of professional teaching staff. Simultaneously, efforts should be made to increase publicity and promotion, creating a positive social atmosphere. It is believed that with the joint efforts of all parties, Wuji ball will play a greater role in promoting the healthy growth of adolescents and contribute to the construction of a healthy China.

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