

The Promotion Effect of School Physical Education on Physical Health of Young Children

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Abstract—This paper probes into the influence of school physical education on students' physical health from the aspects of national policy guidance and school physical education on students' physical health, in order to explore the promoting effect of school physical education on adolescent's physical health. The research finds that the curriculum system of school physical education has been relatively perfected. For the respect on how school sports can promote the development of physical health of teenagers, foreign schools are more likely to enrich physical education content by adding new sports to promote students' interest in participating in sports activities. And it also shows that a few countries have implemented network information management on students' personal information and health data during their study periods.

Keywords—school sports; teenagers; physical health; promoting effect

I. INTRODUCTION

School physical education is an important part of school education, which has the function of laying a foundation for lifelong physical education. School physical education plays an important role in the development of teenagers' physical health. This paper summarizes and integrates the existing studies on the impact of physical health of school sports teams on students, and sum up the current research to provide reference for the follow-up research.

II. THE EFFECT OF SCHOOL PHYSICAL EDUCATION ON STUDENTS' PHYSICAL HEALTH UNDER THE GUIDANCE OF NATIONAL POLICIES

Young children are the backbone of the nation's construction in the future; a healthy body and mind are the essential material basis for their intelligence. The result of literature investigation shows that since the 1980s, there has been unprecedented attention to the physical health of middle school students. Based on the promotion of the physical fitness of young children, governments of all countries have formulated and promulgated relevant sports systems for school sports and adopted measures suitable for national conditions.

Due to the appearance of the military gymnastics in the United States, the study of physique was squeezed out of the school physical education class. And during the Second World War, many raw recruits were found to have generally

declined in physical fitness. Then they realized the importance of physical fitness and lifelong sports became the dominant idea of school sports. The national understanding of physical fitness in the United States is that it is an investment. Physical examination was once popular in the United States which was one of the earliest countries that paid attention to physical fitness. In 1957, the American Health and the Leisure Association launched the "Youth Physical Fitness Test Program". In 1980, in view of the declining physical fitness of teenagers, the US government specially issued a report — National Goals: Health Promotion and Disease Prevention. The report mentioned that in 1990, more than 60% of teenagers (aged 10-17) should participate in physical education class or extracurricular physical activities organized by schools every day, which is the 10-year development goal. In 2002, because of the "Don't leave one Child behind" Act enacted by the United States, American schools treated physical education as a secondary course to improve the efficiency of teaching in other disciplines in order not to leave each child behind, and a large number of schools have announced that physical education classes will be reduced. This move has undoubtedly weakened the status of school sports. [1] And it will inevitably lead to the decline of students' physical quality. According to Kenneth E Powell's survey on fifth and seventh grade students in Zhiya City, it is found that the physical qualities of students who exceeded the average did not meet certain standards which also sounded the alarm for the senior leaders in the United States. Then, in September 2011, the CDC issued the American School Health Guidelines. In order to improve students' dietary health and strengthen students' physical activity, the guidelines put forward guidance suggestions related to school healthy diet and physical activity from nine aspects. From the development process of American students' physical health, it can be seen that the policy of one country is one of the main factors affecting students' physical fitness.

Canada is a country that promotes the "lifelong sports development model". The first three stages of the "lifelong sports development model" are the stage of sports literacy. The first stage is the active starting stage from 0 to 6 years old. The second stage is the stage of interest cultivation from 6 to 9 years old. The third stage is the stage of sports skill learning from 9 to 11 years old. If children find that they are interested in sports activities in these three stages, they can be trained to enter amateur competitive sports, professional

sports and so on, and finally form a positive lifelong sports concept.

Sweden is one of the countries with better mass sports. According to statistics in 1993, there were 27,292 sports clubs in China, and more than 60 percent of the students between the ages of 7 and 20 were members of one or two. The government encourages young people to take an active part in sports activities. It stipulates that five people can take part in sports activities together for one hour and each person will receive 17 kronor. Some countries in Eastern Europe also attach great importance to the development of adolescent physical fitness. As early as the 1970s, Canada, France, Finland, West Germany and other countries also formulated relevant measures to develop adolescent students' physical ability and set up special agencies with special personnel responsible for systematic scientific research for many years.

In some Asian countries, there has also been an upsurge in the physical health of school adolescents. For example, on May 22, 2009, Korea Ministry of Science and Technology Education amended the No. 38 School Health Examination Rules of the Ministry of Education, Science and Technology of Korea and adjusted the health examination system which had lasted for 58 years. The ministry had further perfected the previous system of physical fitness examination for students, and added a personalized exercise prescription to the students after the revision. In this way, the physical health of teenagers and children in schools has been further improved and operable breakthroughs have been made. And they also made an evaluation on students' physical quality in various aspects to choose to convert into corresponding grades. Then they recorded the health results of their students from the first check-up of their school entrance and carried out computer management along with students' further studies, and the Ministry of Education and Science and Technology puts forward improvement plans for the changes of students' physical fitness. Result from that, students could check their own examination results and personalized exercise prescriptions on the website.

For Japan, although it is exam-oriented education like China, because of its perfect physical test management system, their physique is better than that of China. Japan carries out unified physical strength measurement nationwide from May to June every year, and then the government publishes the measured data to the public at home. After that, the national average scores of various indicators are printed in the sports books of middle and primary schools. In this way, it provides a convenient way for citizens to understand their physical health. Also, they can always make a correct judgment about their own situation [3]. However, some scholars believe that the physical improvement of Japanese adolescents is the result of social coordination. For example, Cui Yingbo mentioned in the comparative study of mass sports policies between China and Japan that Japan has a sound health care system, sound sports policies and regulations, and comprehensive measures. This gives the schools in Japan a fairly complete system of school sports [4].

III. RESEARCH STATUS OF SCHOOL PHYSICAL EDUCATION AND STUDENT HEALTH

In view of the research on school physical education and students' health, various countries have implemented fitness programs with local characteristics. For example, in the United States, the most typical one was SPARK sport, Play, and Active Recreation for Kids, a research program of San Diego state university in June 1989. The team proposed a series of exercise measures to promote students' physical health from the starting point of tackling the relatively common obesity among American students. The success of this program has been gradually implemented in various schools in the United States, and has been widely recognized by the education community and all sectors of society.

And Lorraine Lanningham-Foster and others mentioned that the popular DDR in the United States is the "Jump Revolution", which is a movement that can make 7-12 pairs of children achieve a certain improvement in some physical indicators after exercise. In particular, the children's physical fitness improved significantly. Since many children have some interest in it and it can play a role, parents and children now use DDR as the latest weapon to prevent the spread of childhood obesity and improve their health. And in states with high rates of obesity and other related diseases, the government has ordered almost all public schools to apply it to the classroom [5].

In addition, Australian educators are ready to adopt this new teaching method. They use the same nature as DDR to cultivate students' individual functional quality and sports ability. At the same time, the function of built-in system evaluation is added. In this way, students can not only understand their own state of exercise more clearly, but also make timely adjustments to more systematic targeted exercise [6].

In his research on the American school physical education program, Yao Chun talked about a problem that often appears in the American k-12 physical education program — the curriculum of the three levels of primary school, junior high school and senior high school are clear but not related to each other, which is the reflection of the standard. That is to say, its content shows their independence, but from the analysis of level requirements, there is an inevitable relationship between them [7].

According to a large number of foreign literatures, it can be seen that with the continuous progress of society and economy, the physical health of schools in most countries is now associated with the healthy diet of students and the prevention of obesity. Most scholars use experimental methods to intervene and test the physical activities of students in schools, such as Vander Ploeg KA; McGavock J conducted an experimental study on 1151 students from 20 schools in Edmonton, Alberta, Canada. The study mainly compared the physical activity of students in CSH comprehensive schools and general schools, and the physical activity of students returning home after school. The results showed that the implementation of effective physical activities in CSH schools could promote and prevent obesity in the long run. Lack of physical activity is a major risk

factor in childhood obesity and other health consequences. Thailand is a middle-income country, and two-thirds of children are physically inactive. Ar-Yuwat S and other scholars surveyed 123 primary school students in Thailand on the causes of affecting perceived interests and physical activity of primary school students with perceived impairment. The results showed that the level of physical activity of primary school children significantly affected perceived impairment, indicating that physical activity had a significant impact on students' perceived ability [9]. Muros JJ; Zabala M and other scholars divided the sample of 54 children in Five-year Primary Education into two groups: 25 students in an intervention group (IG) and 29 students in a control group (CG). The intervention group received seven weeks of primary education to improve health-related parameters in children using nutrition education combined with extracurricular physical activity (VEPA). The results showed that the IG intervention showed a reduction in body fat percentage, total cholesterol, with low density lipoprotein and blood pressure, as well as an increase and improvement in vo2 Max and dietary intake. Compared to CG, the fat did not change significantly. The results of this study provide evidence that seven weeks of nutrition education and vigorous short-term physical activity in children can improve the relevant parameters of children's physical health [10]. And school students' academic performance is also one of the factors that affect students' physical exercise. In consideration of the increasing sports pressure on students in school curriculum, Tompkins CL and others explored an innovative method to increase physical activity of children. For children in grades 3 to 5, they would participate in a beer-school (7:30 - 8:15) physical activity program for 12 weeks, 3 days a week. The children were given three days to choose activities they liked and were asked to maintain moderate to vigorous physical activity intensity and individual heart rate monitoring. Experimental results show that children participating in before-school have improved their physical activity ability and effectively improved their academic performance [11].

IV. CONCLUSION

To sum up, literature review shows that there are relatively few studies on school curriculum system, and the author believes that the reason is that the school physical education curriculum system has been relatively improved. However, the studies on how school sports can promote the physical health of teenagers and children are mainly focused on enriching physical education content by adding new sports activities, promoting students' interest in actively participating in sports activities, and searching for better methods to promote the physical and mental development of teenagers through experimental research. Among them, the author was deeply touched by the way that South Korea implemented network information management for students' personal information and health data during the study period, so as to facilitate students to inquire their own health test results and obtain personalized exercise prescriptions. Although it's the Internet age now, there are few Cloud platforms in China or even other countries that establish Cloud Computing Assisted Instructions (CCAI) for school

sports management informatization. If we can set up the cloud files of students' sports ability and health from primary school to university, and realize the digital management mode of school sports work, the possibility of sharing resources in the information integration network of government, school and even medical treatment can be realized.

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