

IMPACTS OF SCHOOL SOCCER ACTIVITIES ON ADOLESCENTS' PHYSICAL HEALTH

IMPACTOS DAS ATIVIDADES DE FUTEBOL ESCOLARES NA SAÚDE FÍSICA DOS ADOLESCENTES

REPERCUSIONES DE LAS ACTIVIDADES DE FÚTBOL ESCOLARES EN LA SALUD FÍSICA DE LOS ADOLESCENTES



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ABSTRACT

Introduction: The level of muscle mass of Chinese youth is below the world average, this is a problem that involves eating habits, economic factors, and a recent deficit in sports habits. Soccer has been generating interest among young people, as it is a healthy sports practice that improves the physical conditioning of its practitioners. In this aspect, it is believed that promoting soccer in schools can improve adolescents' physical health. **Objective:** Improve students' physical health by cultivating reserve soccer talents are the main purpose of this article. **Methods:** The importance and existing problems of school soccer are surveyed, and the effect of school soccer sports practice on adolescents' health is analyzed. Based on the results, some suggestions for popularizing soccer among adolescents and its cultural development are provided. **Results:** Soccer is an intense sport; also, it is the most popular and practiced sport in the world. From the growth process of many soccer powers in the world, improving the level of soccer competition in a country cannot be separated from the comprehensive development of school soccer. **Conclusion:** Long-term participation in soccer by adolescents can improve their physical conditioning. **Level of evidence II; Therapeutic studies - investigation of treatment outcomes.**

Keywords: Students; Soccer; Adolescent; Physical Fitness.

RESUMO

Introdução: O nível de massa muscular dos jovens chineses está abaixo da média mundial, este é um problema que envolve hábitos alimentares, fatores econômicos e um recente déficit nos hábitos esportivos. O futebol vem gerado interesse entre os jovens, sendo uma prática esportiva salutar que aprimora o condicionamento físico de seus praticantes. Nesse aspecto, acredita-se que a promoção do futebol nas escolas possa melhorar a saúde física dos adolescentes. **Objetivo:** Melhorar a saúde física dos alunos, cultivando talentos de reserva de futebol são os principais propósitos desse artigo. **Métodos:** A importância e os problemas existentes do futebol escolar são levantados, analisa-se o efeito da prática esportiva do futebol escolar sobre a saúde dos adolescentes. Com base nos resultados, são fornecidas algumas sugestões para a popularização do futebol entre os adolescentes e o seu desenvolvimento cultural. **Resultados:** O futebol é um esporte intenso, também é o esporte mais popular e praticado no mundo. Do processo de crescimento de muitas potências do futebol no mundo, a melhoria do nível de competição de futebol de um país não pode ser separada do desenvolvimento abrangente do futebol escolar. **Conclusão:** A participação de longo prazo dos adolescentes no futebol pode melhorar seu condicionamento físico. **Nível de evidência II; Estudos terapêuticos - investigação dos resultados do tratamento.**

Descritores: Estudantes; Futebol; Adolescente; Aptidão Física.

RESUMEN

Introducción: El nivel de masa muscular de los jóvenes chinos está por debajo de la media mundial, se trata de un problema en el que intervienen los hábitos alimentarios, los factores económicos y un reciente déficit en los hábitos deportivos. El fútbol ha ido generando interés entre los jóvenes, siendo una práctica deportiva saludable que mejora la condición física de sus practicantes. En este aspecto, se cree que la promoción del fútbol en las escuelas puede mejorar la salud física de los adolescentes. **Objetivo:** Mejorar la salud física de los estudiantes cultivando talentos futbolísticos de reserva son los principales propósitos de este artículo. **Métodos:** Se estudia la importancia y los problemas existentes del fútbol escolar, y se analiza el efecto de la práctica deportiva del fútbol escolar en la salud de los adolescentes. A partir de los resultados, se ofrecen algunas sugerencias para la popularización del fútbol entre los adolescentes y su desarrollo cultural. **Resultados:** El fútbol es un deporte intenso, también es el más popular y practicado del mundo. Desde el proceso de crecimiento de muchas potencias futbolísticas en el mundo, la mejora del nivel de competición futbolística de un país no puede separarse del desarrollo integral del fútbol escolar. **Conclusión:** La participación a largo plazo de los adolescentes en el fútbol puede mejorar su estado físico. **Nivel de evidencia II; Estudios terapéuticos - investigación de los resultados del tratamiento.**

Descriptorios: Estudiantes; Fútbol; Adolescente; Aptitud Física.



INTRODUCTION

Teenagers are the future of the country, shouldering the important task of building the motherland, their physique and health level directly affect the future national physique and health level of a country, teenagers' physique and health status is related to the rise and fall of our Chinese nation in the future.¹ At present, the main problems of students' physical health are poor eyesight, overweight and obesity. National and local governments have been looking for ways of physical education teaching to enhance students' physique.² In the context of campus football, it is a new attempt to introduce community club coaches into school physical education class to carry out campus football jointly by school and community Football Club.³ From the growth process of many world football powers, the improvement of a country's football competitive level is inseparable from the comprehensive development of campus football.⁴ There is no doubt that enhancing students' physical health and cultivating football reserve talents can be said to be the two main purposes of campus football activities, of which "educating people" is the primary purpose.⁵ As the main behavior group of campus football activities, teenagers, as the future and hope of the country, are facing the dilemma of deteriorating physical health.⁶ The weak physical health of young people has long been one of the problems perplexing China's education and social development. Under the background of vigorously promoting campus football in China, improving the physical health of young people is facing good opportunities and unprecedented favorable conditions.⁷

It is of far-reaching significance to vigorously carry out campus football. Schools should take football as the carrier, widely carry out campus football activities, popularize football knowledge and skills, enhance students' physique, cultivate their spirit of striving and forging ahead, unity and cooperation, comprehensively improve teenagers' physique and physical fitness, and promote students' all-round development.⁸ Football is a fierce and charming sport, and it is also the most popular, widely developed and influential sport in the world. It is carried out in almost every corner of the world.⁹ The development of campus football activities is based on the improvement of teenagers' physical health and the cultivation of football reserve talents. However, the understanding of many social groups is not comprehensive, which affects the development and implementation efficiency of campus football activities to a certain extent. Social support can not be ignored to implement the relevant policies of campus football, let more teenagers participate in football activities and improve their physical health.¹⁰ This paper expounds the significance of campus football and the problems it faces, and analyzes the promoting effect of campus football on Teenagers' physical health, aiming to provide some suggestions for the popularization of campus football among Chinese teenagers, and promote the development of "Sunshine Sports" among teenagers.

The problems of teenagers' physical health

Since the founding of the people's Republic of China, China's youth sports industry has been booming, school sports work has made great achievements, greatly improving the health quality of the whole people. Today, with the rapid development of society, people's quality of life is gradually improving, and the improvement of productivity and production level is more and more dependent on information technology. As a result, the sedentary lifestyle has gradually occupied the leading position in people's life, and the physical health of teenagers has also opened up a new situation and presented new development characteristics. The ultimate goal of "Sunshine Sports" is to solve the physical and mental health problems of young students, and ultimately improve the overall quality of the whole nation. After more than three years of development, "Sunshine Sports" development is uneven.

In some areas that pay more attention to quality education, sunshine sports is carried out and promoted smoothly, and has achieved good results. But in most areas, the development of sunshine sports has encountered the bottleneck problem which is difficult to break through. The motivation of the integration of sports activities and adolescent health education is shown in Figure 1.

Many studies have shown that the physical health of teenagers is not optimistic. From the aspect of body shape, the lifestyle of sedentary behavior leads to a significant increase in adolescent weight and various horizontal dimensions. Many adolescents are characterized by excessive BMI, overweight and obesity. Campus football can not only exercise the body, strengthen the mind, improve the personality, promote learning and training and team building, but also forge children's creativity through the ever-changing football field.

Promoting effect of campus football activities on Teenagers' physical health

Teenagers are in an important period of growth and development in their lives. As far as the whole process of human life and development is concerned, this period is a stage in which teenagers' physiology is constantly improving. All organs, from muscles to bones, from nervous system to internal organs, must exercise accordingly in order to grow and develop healthily. Football, as an international sport, has the characteristics of long duration and high activity intensity. Many studies have shown that long-term football can greatly improve the body shape of teenagers. Football has a long movement time, a large movement area, high movement intensity and large energy consumption. At the same time, due to the competition of football, students' efforts and enthusiasm to participate in activities are greatly improved, and they naturally devote themselves to football and consume more energy. Therefore, football has a good effect on controlling weight and reducing fat.

Campus football activities can keep young students away from the screen, change the bad habits of sitting quietly and moving less, and play a very important role in the normal development of teenagers' spine and keeping good body posture. Therefore, the large-scale football activities on campus can play a good role in improving teenagers' physical form and lay a good foundation for improving teenagers' physical health and sports level. The system structure of football injury prevention method is shown in Figure 2.

Use the following formula to express the second moment of the psychological function of football training:

$$D_i = a + \sum_{j=1}^n b_j p_j + r_i Y + u \quad (1)$$

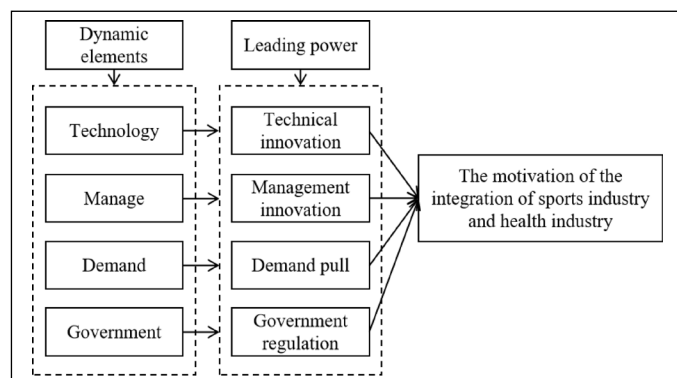


Figure 1. The motivation for the integrated development of sports activities and youth health education.

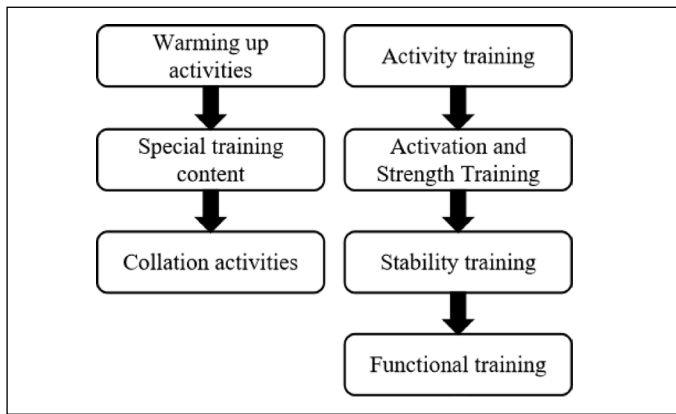


Figure 2. The system of prevention methods for football sports injuries.

Establish the linear transformation matrix that produces the factors of athletes' mental function:

$$\ln(D_i) = a + \sum_{j=1}^n b_j \ln(p_j) + r_i \ln(Y) + u \quad (2)$$

Get the sample matrix of mental function caused by football training:

$$D_i = a + \sum_{j=1}^n b_j \ln(p_j) + r_i \ln(Y) + u \quad (3)$$

The characteristics of football increase the activities of feet and legs. At the same time, football has strong antagonism, which requires higher strength and explosive force of lower limbs. Long-term confrontation and short-range acceleration and emergency stop increase the strength and outbreak of students' lower limbs. The development of campus football activities not only greatly improves the body shape of teenagers, but also greatly helps the improvement of cardiopulmonary function.¹¹ The heart volume and volume of teenagers are smaller than those of adults, and the development of blood vessels is slower than that of the heart. The heart rate and cardiac output increase during exercise, which is beneficial to improve the cardiovascular function of teenagers. In order to avoid boring physical training and technical training, students can't concentrate their attention, and arrange the teaching content into football games, so that when the teaching content can be implemented smoothly. Students practice football skills through games, master the skills of football, and exercise and enjoy themselves. The choice of teaching content of football elective course plays an important role in the enthusiasm of students to participate in the course and the development of students' personal ability. Through the investigation of the teaching content of football elective course, it is found that the technical skills of football play a large part in the teaching content.

Physical quality

Football promotes the exercise of lower limbs, increases the strength and burst of legs, and reduces the reaction time of muscles, which plays a significant role in improving the standing long jump performance. Furthermore, it can promote the growth of lumbar and abdominal muscle strength, promote the coordination ability of various parts of the body, increase the ability of human body to tolerate lactic acid, prolong the fatigue arrival time, increase the anti-fatigue ability, and effectively increase the number of sit-ups. The activity mode of sprinting and stopping in sports can stimulate the heart to pump blood. This kind of irregular medium and high intensity exercise can improve the rhythmic movement of teenagers' hearts, increase the frequency of cardiovascular

activities and improve the cardiovascular elasticity, so as to achieve the purpose of preventing cardiovascular diseases such as hypertension in teenagers. At the same time, teenagers can fully exercise the quality of respiratory muscles, gradually increase the lung ventilation, expand the chest capacity and improve the vital capacity of teenagers by continuously inhaling and exhaling greatly during exercise. Football has a long time, a high density, and a high intensity. Long-term football can increase and deepen the breathing depth, improve the efficiency and function of lung breathing, and thus improve the vital capacity.

Primary and secondary schools are the best time for students to develop their physical fitness. At this stage, systematic participation in sports is beneficial to the development of teenagers' physical fitness, and has a great impact on their physical indicators. Appropriate sports can promote teenagers' healthy growth. Teenagers and students' interest in sports has reached the stage of individualized development, and their personal interest in sports has developed from considerable interest and desire to try in most sports in adolescence to unique interests and hobbies in some of them or even a certain project. Football, as an interesting sport, can not only train teenagers' explosive power and endurance, but also improve their physical quality in sensitivity and balance.¹² Many studies have confirmed that teenagers' long-term participation in football can improve their physical fitness. Standardized consideration of students' physique is to stipulate students' physical quality by rigid means. Incorporate the requirements of students' physical quality into the evaluation of teachers. This requires teachers to pay attention to the cultivation of students' physical quality, and set up competitive game contents in football special classes, so as to arouse students' interest in learning football special classes and improve the comprehensive physical quality of male teenagers.

Psychological diathesis

The rapid physiological changes in adolescence have an important impact on their psychological development. The rapid physiological maturity easily makes children feel adult, while the relatively slow psychological development makes them still in a semi-mature state, and their physical and mental development will gradually lose balance at this stage. The fundamental purpose of developing campus football is to enable students to walk out of the classroom and go to the playground through school physical education, so that students can love sports activities and cultivate the awareness of lifelong fitness. So for students, introductory teaching should teach them how to master technical skills, and combine them with their own situation and the law of sports development, so that students can quickly master special skills. As a sport with mature system development, ball has a far-reaching promotion effect on the cultivation of teenagers' personality. Hard training in football field can hone students' hard work and strong will.

To a great extent, the improvement of students' training level depends on students' interests and correct teaching methods and means. Therefore, in the process of football training, it is necessary to meet students' actual needs, attach importance to students' emotional experience and pay attention to each student, so that they can experience the fun of learning and success, so that students can gradually form a phenomenon of loving campus football and sports, and establish lifelong sports awareness. A survey of teenagers' satisfaction with football teaching content is shown in Table 1.

Table 1. Survey on the satisfaction degree of young people with football teaching content.

Satisfaction	Very satisfied	Satisfied	Basically satisfied	Not very satisfied	Very dissatisfied
Number of people	85	111	138	74	29
Proportion (%)	29.5	25.4	31.6	16.9	6.6

Superior life and overindulgence from one's side lead to young people's lack of ability to resist setbacks. The difficulties in football training are helpful to cultivate their ability to overcome setbacks. The improvement of training or competition results in football field can make teenagers feel a sense of accomplishment and build up their self-confidence. College stage is an important period for people to cultivate their personality and improve themselves. For teenagers, only by forming a sound self-awareness can they actively transform themselves and improve themselves. The development of campus football provides a platform for young people to relieve psychological pressure, which increases the communication between students and teachers and students in time, is conducive to mutual understanding, relieves psychological pressure through sports, and promotes the healthy development of psychology. In addition, acquiring a sports skill at the critical stage of growth will lay a solid foundation for cultivating teenagers' lifelong sports awareness.

CONCLUSIONS

The development of campus football activities conforms to the law of physical quality development, and is conducive to the cultivation of young people's positive and healthy psychological quality. Let football enter the campus. Carrying out campus football activities not only shoulders the strategic task of improving the quality level

of Chinese football reserve talents, but also completes the historical task of exploring new and effective ways for comprehensively implementing China's education system reform and school physical education reform and promoting students' physical and mental health. Football coaches can improve the teaching quality of football classes, increase the intensity and time of physical fitness exercises, and make the exercises more diversified, so as to enhance students' interest in participating in football. Football, as an interesting sport, can not only train teenagers' explosive power and endurance, but also play a good role in improving their physical fitness in sensitivity and balance. The development of campus football provides a platform for young people to relieve psychological pressure, which increases the communication between students and teachers and students in time, is conducive to mutual understanding, relieves psychological pressure through sports, and promotes the healthy development of psychology. The popularization and development of campus football can not be separated from the support and guidance of every citizen who really cares and likes football. Creating a positive and good public opinion atmosphere will attract more football fans to join in football.

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