

# EFFECTIVE FORMS OF PHYSICAL EXERCISE TO PROMOTE THE HEALTH OF COLLEGE STUDENTS



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FORMAS EFETIVAS DE EXERCÍCIO FÍSICO PARA PROMOVER A SAÚDE DOS ESTUDANTES UNIVERSITÁRIOS

FORMAS EFECTIVAS DE EJERCICIO FÍSICO PARA PROMOVER LA SALUD DE LOS ESTUDIANTES UNIVERSITARIOS

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## ABSTRACT

**Objective:** Given the current scenario of development and progress, we intend to raise effective alternatives for promoting physical exercise in college students. **Methods:** A literature review was carried out to identify college students' behavior characteristics and the points that deserve more attention in their physical health. **Results:** Factors such as unhealthy nutrition, high-stress load, and lack of physical activity lead to poor physical fitness in the university population. **Conclusions:** The development of public policies should be people-oriented, advertising a university education as a place for training and exporting talent can enrich the sporting life of college students, improve the quality of public class teaching in physical education, promote good exercise habits among college students and then improve their physical and mental health. **Level of evidence II; Therapeutic studies - investigation of treatment results.**

**Keywords:** Public Health; Exercise; Student Health.

## RESUMO

**Objetivo:** Dado o atual cenário de desenvolvimento e progresso, pretendemos levantar alternativas eficazes para a promoção do exercício físico nos estudantes universitários. **Métodos:** Foi executada uma revisão bibliográfica para levantar as características no comportamento do universitário e os pontos que merecem maior atenção em sua saúde física. **Resultados:** Fatores como nutrição desregrada, alta carga de estresse e principalmente a falta de atividades físicas levam a uma aptidão física deficitária da população universitária. **Conclusões:** o desenvolvimento de políticas públicas deve ser orientado para a população universitária, a propaganda de uma educação universitária como um lugar de treinamento e exportação de talentos pode enriquecer a vida esportiva dos estudantes universitários, melhorar a qualidade do ensino da classe pública em educação física, promover bons hábitos de exercício entre os estudantes universitários e então melhorar sua saúde física e mental. **Nível de evidência II; Estudos terapêuticos – investigação de resultados de tratamento.**

**Descritores:** Saúde Pública; Exercício Físico; Saúde do Estudante.

## RESUMEN

**Objetivo:** Ante el actual escenario de desarrollo y progreso, nos proponemos plantear alternativas eficaces para la promoción del ejercicio físico en los estudiantes universitarios. **Métodos:** Se realizó una revisión bibliográfica para plantear las características en el comportamiento de los estudiantes universitarios y los puntos que merecen más atención en su salud física. **Resultados:** Factores como una alimentación poco saludable, una elevada carga de estrés y principalmente la falta de actividades físicas conducen a una deficiente aptitud física de la población universitaria. **Conclusiones:** el desarrollo de las políticas públicas debe orientarse hacia la población universitaria, la propaganda de la educación universitaria como lugar de formación y de exportación de talentos puede enriquecer la vida deportiva de los universitarios, mejorar la calidad de la enseñanza de las clases públicas de educación física, promover los buenos hábitos de ejercicio entre los universitarios y mejorar así su salud física y mental. **Nivel de evidencia II; Estudios terapéuticos – investigación de resultados de tratamiento.**

**Descriptorios:** Salud Pública; Ejercicio Físico; Salud del Estudiante.



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## INTRODUCTION

According to the national student physique and health survey report in recent years, the physical health of young students is not optimistic, showing a continuous downward trend.<sup>1</sup> Physical and mental health is an important factor for a person's all-round development. Today, with the rapid development of social market economy, it is a great challenge for everyone. We need to have a strong body, positive attitude and good psychological quality to face it.<sup>2</sup> Physical fitness is the abbreviation of

physical adaptability, which is an extended concept of health. With the development and progress of the times, it has formed a kind of ability with enough energy and can meet the needs of completing various activities of life. The healthy development level is determined by body shape, life ability, sports quality and body function.<sup>3</sup> At present, in the special group of college students, there is obvious separation and deviation in the cognition and behavior of physical exercise participation.<sup>4</sup> The university stage is a special and critical stage. College students'

understanding of physical exercise and the cultivation of exercise awareness and behavior habits at this stage have a more positive impact on the future work, the maintenance of physical fitness and even lifelong participation in physical exercise.<sup>5</sup> With the development of society and the progress of human beings, people's understanding of physical fitness is gradually improving, and at the same time, they are more and more aware of the importance of physical exercise to physical fitness. Many studies show the correlation between physical health and physical exercise, which reflects the importance of physical exercise behavior for college students' physical health.<sup>6</sup>

Health fitness is closely related to people's health. Standard health fitness is the lowest standard fitness that can reduce chronic diseases and maintain physical fitness. It is also the fitness that can strengthen people's daily life and increase the efficiency of life and learning. It can be used to evaluate people's normal physiological indicators and is the basic embodiment of people's health. Malignant events caused by psychological and behavioral abnormalities often occur. The mental health problems of college students have seriously affected the normal development of Chinese college students and their own quality, and the research on the physical and mental health development of college students is imminent. College students are the cornerstone of social development, their physical and mental health for the whole society has an incomparable role, how to maintain the physical and mental health of college students, physical exercise has become an important method. Development should be people-oriented, university education as a place of personnel training and output, in the construction of a harmonious society and the implementation of quality education today, we should enrich college students' sports life, improve the quality of public physical education teaching, greatly promote college students to form a good habit of physical exercise, and then enhance the quality of College Students' physical health and mental health.

### Physical health and physical exercise

Genetic factors are the innate conditions for the development and change of a person's physique, which has an important relationship with the strength of a person's physique. However, the influence of genetic factors on Physique still depends on the acquired environment, nutrition, physical exercise and health care conditions. In other words, although the physique is affected by genetic factors, it is possible to improve it through physical exercise and medical care, especially physical exercise, which is the most active and effective way to enhance the physique. Cardiovascular fitness can reflect to a certain extent the corresponding material, energy and oxygen that the system needs to deliver to the muscles during blood transportation, so as to maintain the body function. Low grade students have relatively strong cardiovascular fitness, which is also the period of most physical exercise. Because of physical exercise and congenital advantages, the cardiovascular fitness of low grade students is generally higher than that of high grade students. In the University, the environment is relatively free, there will be no teachers to urge you, the management mode is relatively loose, and many things can only be solved by themselves. Therefore, those students who are used to the mode of high school classes will have a confused and idle mind, many difficulties can not be solved independently, so the sense of frustration and failure is greatly enhanced, and the psychological pressure will increase.

In order to promote the healthy growth of young students and master the real physical health status of young people, the main indicators of physical health status of students in a domestic university in recent three years were sampled and measured. As shown in Table 1, the data analysis of physical health status of students in our school in recent three years.

**Table 1.** Analysis of sampling data of students' physical fitness.

Year	Qualified		Good		Excellent	
	Number of people	Proportion (%)	Number of people	Proportion (%)	Number of people	Proportion (%)
2020	1676	81.4	228	11.1	155	7.5
2019	1702	86.7	234	11.9	28	1.4
2018	1678	80.6	379	18.2	24	1.2

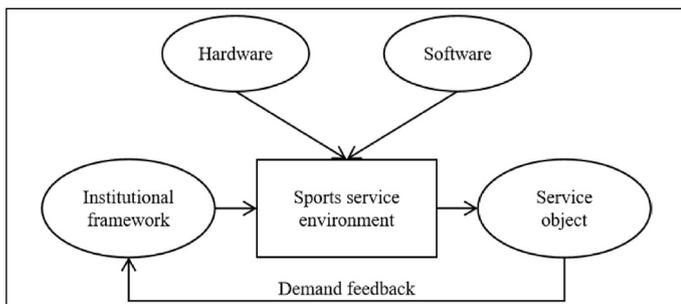
While acknowledging the role of genetic factors in the body, we should emphasize the importance of shaping people's physique and health, such as the long-term effect of repeated stimulation of physical exercise on the body. Compared with high school, college is more free. It doesn't do anything like high school. Teachers are in charge of it. The students who have just entered the university are still in a period of intense emotional fluctuations, and are in a critical period of youth development. Their physiological development has matured, but their experience is not enough and their inner feelings are shaken too much, which may cause excessive psychological and emotional reactions to a small thing, resulting in losing their senses. At present, college students are at the highest stage of muscle strength, so schools need to pay attention to the exercise of muscle strength of college students [10]. After entering university, students are very interested in all things and activities, which are mainly muscle endurance exercise. For some senior college students, we should pay more attention to the beauty of body and strength. With the development and demand of the society, the former education format and job hunting focus not only on academic achievements, but also on the talent market with high and low competition in their own quality and ability. Moreover, due to the huge population pressure in China, the number of college students is increasing every year. Sometimes hundreds or even thousands of people are likely to apply for a position, which increases the psychological pressure of college students.

### Effective ways of physical exercise to promote college students' physical health

#### Strengthen publicity

School leaders and teaching management workers should pay enough attention to physical education, pay attention to students' physical quality and strength level, and actively take effective measures to create a good physical exercise atmosphere on campus to attract students to participate in physical exercise. Creating a good campus sports culture atmosphere is an important guarantee to carry out sunshine sports. The survey shows that only 41.7% of college students understand Sunshine Sports from campus network, radio station, report meeting and other channels, which indicates that the publicity is not enough, and the way of publicity needs to be updated according to the characteristics of the current era, such as wechat public platform, circle of friends, microblog and other high-level issues Attention media platform. In the physical education classroom, the interest of students and teaching interest are organically combined, but in the teaching process can not pay too much attention to interest, leading to the neglect of the cultivation of students' will quality. We should give full play to the local characteristics and reasonably add sports with national characteristics in college students' physical education class. To improve the college students' physical health test mechanism, college students' physical health test is the most objective and direct standard to test the effect of sunshine sports. (Figure 1)

College students are at an important stage of physical and mental development, and their bodies are highly malleable. Regular physical activities can promote blood circulation, strengthen bones, increase muscles, strengthen their bodies, and promote their height growth. Carry out a variety of cultural and sports activities, so that students' sports associations, associations and clubs can organize various forms and colorful group fitness and entertainment activities, so that college students can feel the fun of



**Figure 1.** The basic element structure of the integrated service system for adolescents' physical health.

campus sports activities and physical exercise, develop the habit of morning exercises and reduce the problem of "lazy bed". In sports activities, due to the variability of the weather, some sports activities may be carried out in the environment and conditions of severe cold, heat and wind and rain, so the students' ability to adapt to the environment has been continuously improved [12]. Moreover, physical activities can also improve immunity, enhance their own resistance to diseases, produce antibodies, reduce colds, fever and other diseases, so that students can adapt to the fast pace of society. The relevant departments of colleges and universities should pay enough attention to the physical health test of college students, strictly implement the relevant provisions of the state, and include the physical health test results in the comprehensive assessment results, accounting for a certain proportion, so as to urge students to take physical exercise.

### Increase funding input

In the process of physical exercise, because the cerebral cortex is in a strong active state, it can transfer students' unhappy mood and behavior, reduce their anxiety, distract their attention and relieve their psychological pressure. Students' physical function development mainly includes respiratory system and cardiovascular system. The promotion effect of physical exercise on cardiovascular system is mainly manifested in the acceleration of blood circulation, more nutrients to myocardium, thickening of myocardial fibers, thickening of heart wall, improvement of blood supply to heart and whole body, and greater contractility of heart. The variety of sports and the influence of various external environments can develop students' different emotions, and collective sports activities can enhance students' collective sense of advancing and retreating together and sharing honor.

Sports clubs refer to organizing students according to their sports specialties and interests and joining them freely, and bringing them into various special clubs for organized training and competitions [13]. Sports associations are the extracurricular sports activities of amateur groups formed spontaneously by students with the same sports interests and hobbies. Figure 2 shows the relationship between diversified governance subjects of adolescent physical health public service.

The student's learning activity information is fed back to the personalized data analysis module, which is reprocessed by the personalized data analysis module to update the student information database. In the formula for calculating information gain, the degree of information gain:

$$P = P(Y = 1) = F(\beta_i X_i) \quad (1)$$

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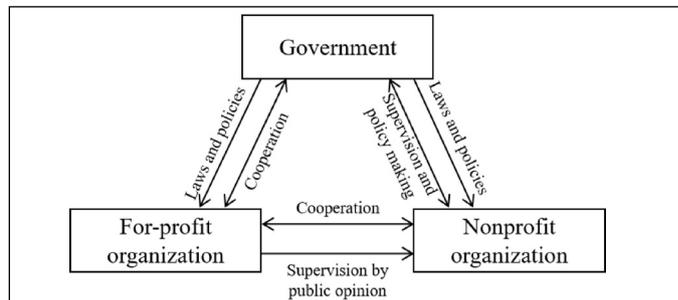
### REFERENCES

- Wang HY, Xu QF. The effect of physical exercise on the mental health of college students. *Occupation and Health*. 2017;33(3):396-8.
- Sheng F, Yang P. Fuzzy evaluation of adolescents' health literacy based on early warning theory of psychological risk. *Journal of Intelligent & Fuzzy Systems (Preprint)*: 1-7.
- Meng SX, Shen C. Analysis of the effect of sports intervention on the physical and mental health of college students and its influencing factors. *Chinese School Health*. 2018;295(7):72-5.

According to the idea of decision tree, relevant data is obtained to describe in detail the method of obtaining information gain:

$$R_i(p_{I_i}, Q_i) = p_{I_i} \cdot \min(I_i + Q_i, D_i) - (p_{O_i} \cdot Q_i + C_i \cdot I_i) + R_{i-1} \quad (2)$$

Teachers' lack of safety awareness and good safety behavior habits are the main factors affecting the safety of teenagers' physical education teaching. Table 2 shows the sports safety problems of students in school.



**Figure 2.** The relationship between the main bodies of diversified governance of public services for youth physical health.

**Table 2.** Situations of sports safety issues among college students.

Total people	187
Never happened	88
Once	41
Twice	32
Three times	12
More than three times	14

### CONCLUSIONS

There are many reasons for the decline of college students' physical health level in China. The sunshine sports has effectively slowed down the decline of students' physical quality, but the sunshine sports has not been effectively implemented in all aspects, only part of the contents are carried out according to the school conditions. There is a positive correlation between sports condition and college students' physical health and mental health. Except that there is no significant difference between personality and body shape, physical health and its dimensions, such as body shape, body function and physical quality, are positively correlated with mental health and its dimensions, such as cognition, emotion, personality and adaptation. In the society, students should form the consciousness of physical exercise subconsciously. In addition, students should be encouraged to actively participate in various activities organized by the people, so that students can find the charm of sports in such activities and improve their lives through such sports activities. Schools should improve college students' understanding of sunshine sports, attach importance to the reform of physical education, strengthen the management of college students' physical health test, enrich extracurricular sports activities and create a good atmosphere for physical exercise. Life lies in exercise, and exercise is more important than persistence. The correlation between physical health and physical exercise reflects the importance of physical exercise behavior for college students' physical health.

All authors declare no potential conflict of interest related to this article