

ANALYSIS AND INTERVENTION ON THE INFLUENCING FACTORS OF COLLEGE STUDENTS' PHYSICAL FITNESS

ANÁLISE E INTERVENÇÃO DOS FATORES INFLUENCIADORES DO CONDICIONAMENTO FÍSICO DE UNIVERSITÁRIOS

ANÁLISIS E INTERVENCIÓN DE LOS FACTORES INFLUENCIADORES DEL ACONDICIONAMIENTO FÍSICO DE UNIVERSITARIOS



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ABSTRACT

Enhancing the physical health of college students is the fundamental guarantee of cultivating high-quality talents. In order to understand the influencing factors of college students' physical health and carry out targeted intervention, this study aims to analyze the factors affecting college students' physical health. Through the construction of physical health evaluation index and its influencing factors evaluation index, the importance of different indicators is evaluated by using the analytic hierarchy process, and a questionnaire about college students' physical health and its influencing factors is designed. The results show that the factors affecting college students' physical health include students' own factors, school factors, and others. At the same time, the insufficient construction of public sports facilities and the lack of first-class sports venues and equipment are also the reasons for the decline of college students' physique. Therefore, we can intervene in the students' physical health from the aspects of raising the students' awareness about physical exercise and Ensuring the construction of school sports facilities. It is hoped that this study can provide some reference for the empirical analysis and intervention research on the influencing factors of college students' physical health.

Keywords: Public sports; college students; physical health; influencing factors; intervention.

RESUMO

Melhorar a saúde física dos estudantes universitários é a garantia fundamental de cultivar talentos de alta qualidade. A fim de compreender os fatores que influenciam a saúde física dos estudantes universitários e realizar uma intervenção direcionada, este estudo visa analisar os fatores que afetam a saúde física dos estudantes universitários. Através da construção do índice de avaliação da saúde física e do índice de avaliação dos seus fatores influenciadores, a importância de diferentes indicadores é avaliada através do processo hierárquico analítico, e um questionário sobre a saúde física dos estudantes universitários e seus fatores influenciadores é elaborado. Os resultados mostram que os fatores que afetam a saúde física dos estudantes incluem fatores próprios dos estudantes, fatores escolares, e outros. Ao Mesmo tempo, a insuficiente construção de instalações desportivas públicas e a falta de espaços desportivos de primeira classe e de equipamentos são também as razões do declínio do físico dos estudantes universitários. Por isso, podemos intervir na saúde física dos alunos a partir dos aspectos da conscientização dos estudantes, e garantir a construção de instalações desportivas escolares. Espera-se que este estudo possa fornecer alguma referência para a análise empírica e pesquisa de intervenção sobre os fatores que influenciam a saúde física dos estudantes universitários.

Descritores: Desporto público; estudantes universitários; saúde física; fatores de influência; intervenção.

RESUMEN

Mejorar la salud física de los estudiantes universitarios es la garantía fundamental para cultivar talentos de alta calidad. Con el fin de comprender los factores que influyen en la salud física de los estudiantes universitarios y llevar a cabo una intervención específica, este estudio tiene como objetivo analizar los factores que afectan la salud física de los estudiantes universitarios. A través de la construcción del índice de evaluación de la salud física y el índice de evaluación de factores de influencia, se analiza la importancia de los diferentes indicadores utilizando el proceso de jerarquía analítica y se diseña un cuestionario sobre la salud física de los estudiantes universitarios y sus factores de influencia. Los resultados muestran que los factores que afectan la salud física de los estudiantes universitarios incluyen los propios factores de los estudiantes, los factores escolares y otros. Al mismo tiempo, la construcción insuficiente de instalaciones deportivas públicas y la falta de instalaciones y equipos deportivos de primera clase son también las razones del declive del físico de los estudiantes universitarios. Por tanto, podemos intervenir en la salud física de los alumnos sensibilizando a los alumnos sobre el ejercicio físico y asegurando la construcción de instalaciones deportivas escolares. Se espera que este estudio pueda proporcionar alguna referencia para el análisis empírico y la investigación sobre los factores que influyen en la salud física de los estudiantes universitarios.

Descriptor: Deporte público; estudiantes universitarios; salud física; factores que influyen; intervención.



INTRODUCTION

With the increasing abundance of social material, people pay more and more attention to their own physical health. Although people pay more attention to physical health, up to now, only about 10% of Chinese people have good health literacy. The main reason lies in the lack of social attention to physical education.¹ Higher education shoulders the important responsibility of cultivating talents. In order to cultivate talents with high quality, physical education is also a part of higher education that can not be ignored.² College students are the key period to form a good health literacy, health literacy is related to the growth of students and the future of the country, which is enough to explain the importance of College Students' physical health. However, in the current physical education in Colleges and universities, there are many problems, mainly reflected in the school does not pay enough attention to physical education, which leads to the school sports facilities and sports venues are not perfect.³

Mazurek Melnyk and others analyzed the physical health status and lifestyle of students from different colleges of a university in the United States when studying the impact of lifestyle on College Students' physical health. The results showed that the physical health of college students was greatly affected by lifestyle.⁴ When studying the physical health of college students, studied the relationship between College Students' physical health and physical adaptability through aerobic fitness, standing long jump, shoulder stretching and sprint test. The results show that this test method has high reliability. When studying the changes and correlation between the physical health parameters of college students, In order to study the relationship between exercise time and physical health of college students, casado-p é rez and others observed and analyzed students' exercise time and physical health by using logistic regression model. The results showed that the longer the exercise time, the healthier the students' health.⁵ Barbara h et al. Tested a number of physical function parameters of college students, including cardiopulmonary function, muscle strength, etc. when studying the effect of College Students' physical health on a variety of physiological and pathological processes, the results showed that the physical health of college students affected their physiological and pathological processes.⁶

It can be seen that research at home and abroad mainly involves the test of College Students' physical health, and the research rarely involves the factors affecting college students' physical health. Therefore, this study on the basis of public sports, using examples to study the influencing factors and intervention of College Students' physical health.

Physical health of college students and its influencing factors

Physical health analysis

According to the results of the questionnaire survey, the physical health of college students is obtained, including the results of body shape, body function and physical fitness. The body shape is measured by BMI, which can be divided into normal, overweight, obesity and low weight according to the size of BMI value. The relevant results are shown in Table 1.

Table 1 shows the body shape results of college students according to the questionnaire survey. When the BMI value is less than 18.5, it is the state of low weight. BMI value between 18.5 and 25 is normal, BMI value is greater than or equal to 25, overweight state, BMI over 30 belongs to obesity. It can be seen from the table that among the college students

Table 1. Test results of body shape of college students.

BMI value range	Number of people	Percentage
Normal	385	77%
Obesity	30	6%
Overweight	50	10%
Low weight	35	7%

participating in the questionnaire survey, the number of students with normal body shape is 385, accounting for 77%; the number of obese students is 30, accounting for 6%; the number of students in overweight state is 50, accounting for 10%; the number of students in low body weight state is 35, accounting for 7%. Generally speaking, most of the college students' weight is in a normal state, and the number of students in the state of obesity, overweight and low weight is equal, accounting for 10% or less. From this point of view, the body shape of college students is basically normal, and the proportion under the normal level is small. The results of the latest physical fitness test of college students are shown in Table 2.

Table 2 shows the statistical results of physical function and physical fitness of college students. The three indicators of physical function are cardiopulmonary function, muscle strength and heart rate at rest. The three indicators of physical fitness are sitting body forward flexion, grip strength and back strength. Each index is divided into four grades: excellent, good, qualified and unqualified. As can be seen from the table, in terms of the physical function of college students, 300 of the students who participated in the questionnaire survey had very good cardiopulmonary function, 78 had good cardiopulmonary function, 86 had qualified cardiopulmonary function, and 36 had unqualified cardiopulmonary function; in terms of muscle strength of college students, 280 students participated in the questionnaire survey had strong muscle strength, 64 had good muscle strength, and 110 had muscle strength. In terms of the heart rate at rest, 320 people's heart rate at rest belongs to excellent level, 96 people's heart rate at rest belongs to good level, 50 people's heart rate at rest is qualified, and 34 people's heart rate is unqualified at rest; as for the physical quality of college students, the grip strength of the students participating in the questionnaire survey is better than that of sitting forward bending and back strength test. In other words, there were more excellent and good students in grip strength test, 272 and 98 students respectively, and the number of qualified and unqualified students was less. In addition, 93 students participated in the questionnaire survey. Generally speaking, the qualified rate of students' physical function is relatively high, and the number of students whose central lung function and heart rate are unqualified at rest are less, while the passing rate of students' physical fitness test is relatively low, among which the pass rate of back force test is the lowest, which indicates that the physical quality of college students needs to be strengthened to a certain extent.

Table 2. Statistical results of physical functions of college students.

Number of people	Physical function index			Physical fitness index		
	Heart and lung function	Muscle power	Heart rate at rest	Sitting forward	Grip	Back strength
Excellent	300	280	320	235	272	264
Good	78	64	96	108	98	78
Qualified	86	110	50	92	85	65
Failed	36	46	34	65	45	93

Analysis of influencing factors

There are many factors that affect college students' physical health, among which the most important factors include students' own factors and school factors. According to the statistical results of questionnaire survey, this paper analyzes the students' cognitive degree of physical exercise, their attitude towards opening physical education courses in school and whether they think it is necessary to participate in sports activities. The relevant results are shown in Figure 1.

Figure 1 shows the statistical results of students' cognition of physical exercise. It can be seen from the figure that 51.5% of the students participating in the questionnaire survey think that physical exercise should be insisted on for life, 28.9% of the students think that physical

exercise is completely a kind of entertainment, and 14.8% of the students think that physical exercise is a part of modern life. In addition, 4.8% of the students think that physical exercise is dispensable. According to the statistical results, it can be seen that college students have a higher degree of cognition of physical exercise, but their cognition of physical education in school is different. The attitude of students to the opening of physical education is shown in Figure 2.

Figure 2 shows the students' liking degree to the physical education offered by the school. It can be seen from the figure that 51.45% of the students like physical education, 38.63% of the students think that the physical education is more general, and 9.92% of the students do not like the physical education offered by the school, which shows that the students do not attach great importance to the sports offered by the school, and their willingness to participate in sports is not strong. Students' physical health is closely related to the time they take part in sports. According to the statistical results of the questionnaire, the distribution of the average daily physical exercise time of the relevant students is shown in Figure 3.

Figure 3 shows the distribution of students' average daily exercise time. It can be seen from the figure that 20.56% of the students' average daily exercise time is less than 20 minutes, 41.38% of the students' average daily exercise time is between 21-30 minutes, 25.67% of the students' average daily exercise time is between 31-59 minutes, and 12.39% of the students' average daily exercise time is more than 60 minutes. It can be seen that the average daily exercise time of most students is less than half an hour, and the exercise time of students is an important factor affecting their physical health. In addition, the insufficient construction of public

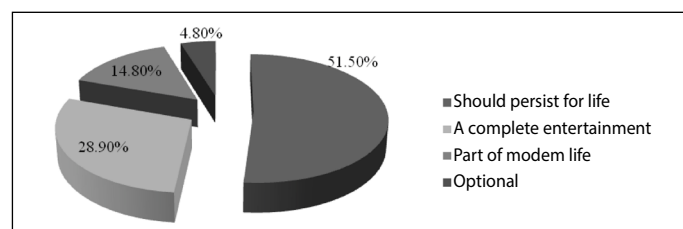


Figure 1. College students' awareness of physical exercise.

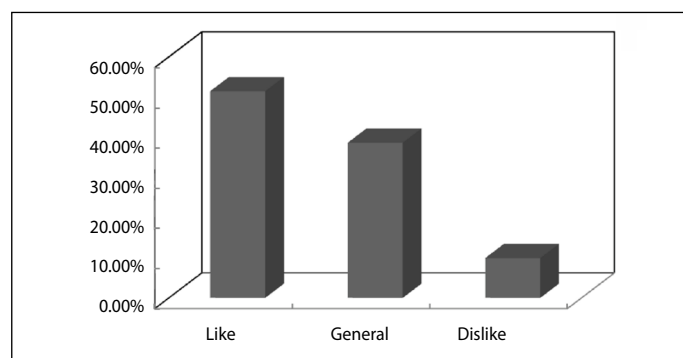


Figure 2. Students' attitudes towards physical education.

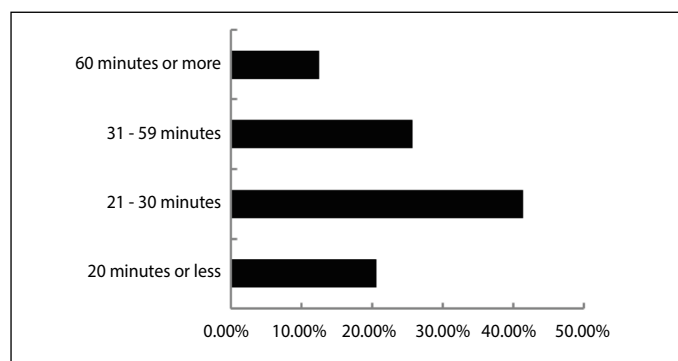


Figure 3. The average daily exercise time of students.

sports facilities and the lack of first-class sports venues and equipment are another important factor leading to the decline of College Students' physical health. The specific performance is that the college sports funds are not enough to guarantee the construction of sports facilities, and not enough to support sports teaching. In the absence of necessary exercise conditions, students often do not have the desire to participate in physical exercise, physical health will be affected to a certain extent.

CONCLUSIONS

To analyze the influencing factors of College Students' physical health is conducive to targeted intervention on College Students' physical health. When analyzing the influencing factors of College Students' physical health, this study constructs the evaluation index of physical health and the evaluation index of influencing factors, and designs the questionnaire on this basis, and obtains the influence degree of different factors on College Students' physical health according to the analytic hierarchy process. The results show that for the physical health of college students, the qualified rate of physical function of college students is relatively high, and the number of students whose central lung function and heart rate are not qualified at rest are less; while the pass rate of students' physical fitness test is relatively low, among which the pass rate of back strength test is the lowest, which indicates that the physical quality of college students needs to be improved to a certain extent strengthen. In addition, the main factors affecting college students' physical health are students themselves. Students' neglect of school sports activities and lack of exercise time are important factors that cause poor physical quality of students. In addition, insufficient construction of public sports facilities and lack of primary sports venues and equipment are also important reasons for the decline of College Students' physical health. This study can reveal the influencing factors of College Students' physical health to a certain extent, but due to the limited number of questionnaires, its universality needs further study.

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