### Research on Countermeasures to Improve College Students' Physical Fitness Test Results

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Keywords: Physique test; College students; Evaluate; College student; Efficient

Abstract: College students' strong physique is an important embodiment of a nation's vigorous vitality and a sign of social civilization and progress. Good physical quality is a favorable guarantee for college students to study, live and work in the future. Therefore, our country needs to further strengthen the physical fitness test of college students, and make students understand the importance of the system test through active publicity and guidance, so as to further improve the physical fitness level of college students in our country. This paper analyzes and studies the physical health test of college students. In addition, the problems and causes of college students' physical fitness tests are analyzed in depth, and some relevant countermeasures and suggestions are put forward to enhance the physical health of college students. The purpose is to correctly guide college students to actively strengthen their own exercise and improve their physical quality, so as to ensure the healthy and sustainable development of the overall physical health level of college students in our country, and further realize the purpose of improving college students' physical fitness.

#### 1.Introduction

The Ministry of Education issued the Basic Standards for Physical Education in Colleges and Universities in 2014. [1] The standards clearly state that colleges and universities should fully implement the National Standards for Students' Physical Health. On October 12, the Ministry of Education issued the "Opinions on Deepening the Reform of Undergraduate Education and Teaching and Improving the Quality of Talents Cultivation in an All-round Way." The document said that colleges and universities should attach importance to the examination of students' physical education courses and that students who fail to meet the requirements of the "National Standards for Physical Health of Students" cannot graduate. College sports scores and graduation certificates are tied to physical test scores. The national standard of students' physical health is an educational means to promote the healthy development of students' physical health and to encourage students to take active physical exercises. The guiding ideology of "health first" should be set up in school education, which prepares students to become high-quality talents with all-round development in morality, intelligence, physique, aesthetics and labor. At the same time, this work is closely linked with the physical and mental health of the majority of students and the improvement of the physical quality of our citizens, and also plays an important role in the development of our higher education. In recent years, the problem of college students' physique in our country has attracted increasing attention from all walks of life. Comparing and analyzing the monitoring results of college students' physique in recent years, the physical quality of college students, such as speed, explosive force and strength, continues to decline. Obese students increased significantly; Decrease of vital capacity, etc. There are many reasons for the decline of college students' physical fitness. [2]Physical fitness testing is affected and restricted by many factors. Through expert interviews and on-site investigations, the author found that the effect of physical fitness testing in colleges and universities is influenced by various factors, including objective factors such as venue equipment and students' physical quality, as well as subjective factors such as school leadership management, teachers'

DOI: 10.25236/icssae.2019.139

implementation and students' cognition. This paper adopts the method of issuing two rounds of expert questionnaires and combining with field investigation and research, starting from the comprehensive perspectives of sociology, psychology, pedagogy and so on, to summarize the factors that affect the effect of physical fitness testing in colleges and universities. According to the survey results, some influencing factors are discussed.

### 2. Analysis on the Influencing Factors of College Students' Physical Fitness Test Effect

### 2.1 School Management and Investment

(Standard) is the basic requirement of the state for students' physical health. It is a concrete implementation process and a standard for individual evaluation of students. It provides a basis for the state to master the physical health of college students and for students to clearly understand their own physical health. It also provides a theoretical reference for students to improve their physical exercise level. For physical fitness testing work. All colleges and universities have special leading groups, which are uniformly allocated by the academic affairs office and organized and implemented by the sports department. According to the survey, 85% of the teachers believe that the leaders attach importance to and manage better schools, and the physical fitness test goes smoothly, and the enthusiasm of the test participants is also high. On the contrary, it is difficult to guarantee the test results and time. [3]

### 2.2 Site Environment and Test Equipment

As the site conditions and the quantity and quality of the testing equipment directly affect the selection of testing items and the quality of testing results, schools have made different choices for physical fitness items according to their own conditions and the requirements of the Standard. The survey found that the vast majority of colleges and universities have relatively professional physique testing instruments and can use school venues for unified testing in practical work. However, schools that lack professional testing instruments or do not have related instruments are difficult to realize relatively centralized testing due to space constraints. Generally, it takes a long time to complete a test.

### 2.3 Teachers' Professional Level and Responsibility

Responsibility and professional level are the basis and premise for teachers to do a good job in physical fitness testing. For teachers taking part in the test. Physical fitness testing is a work beyond routine teaching, which requires extra time and experience to understand the testing content, master the use of testing instruments, and participate in the organization and management of testing students. <sup>[4]</sup>The survey results show that teachers' timely encouragement and guidance will have a positive impact on the test results and increase students' sense of value. At the same time, proficiency in the use of testing instruments can also improve testing efficiency, reduce workload, and enable physical fitness testing to be completed smoothly and efficiently.

### 2.4 Students' Physical Quality and Cognition

The physical quality of students and their cognition of sports are positively related to the test results. The survey shows that students with good physical quality and a certain understanding and cognition of the test tasks and objectives are more active in the test, especially when performing projects with a certain intensity and requiring physical effort, the comparison is more obvious. Whether college students' cognition of sports is correct or not also has certain influence on physical fitness test. Through on-the-spot visits, it is also found that students who have a certain understanding of sports and are more active in physical exercises seldom show fear of difficulties in tests. On the contrary, students who do not pay enough attention to sports and who do not know enough about physical fitness tests tend to be passive, go through the motions more often, and show no understanding and care about the test results.

### 3. Training Methods for College Students to Improve Physical Fitness Test Results

At present, there are mainly 800/1000, vital capacity, standing long jump, sitting forward flexion, grip strength, height, weight and so on in our country's college students' physical fitness test items. In order to improve college students' physical fitness test results, we must make suggestions from the following aspects in order to achieve the goal of promotion.

# 3.1 Try to Control Weight: At present, with the substantial improvement of the living standard of our country's citizens,

The material conditions of the students are guaranteed, the students have a large expenditure on diet, coupled with too little exercise, the proportion of obese students has increased significantly, the increase in weight not only directly affects the health of the students, but also affects the testing of many items. For example, 800/1000 meters, standing long jump, sitting body flexion, etc. Weight control can be done not only through diet, but also through physical exercise, because college students have an incomparable advantage over many units in that they have sufficient exercise venues and facilities, which improves the good hardware guarantee for the majority of students to take exercise. By controlling diet and exercise, you can reduce excess fat and build up a strong body, so that college students will be able to deal with various tests more calmly and achieve the desired good results.

### 3.2 Improve the function of cardiovascular system through regular participation in football, basketball, long-distance running, swimming and other events

Under normal circumstances, the functional status of college students' cardiovascular system will directly affect students' 800/1000 meter test results. The majority of students take part in football, basketball, swimming and other events. These events are endurance events. Frequent participation in these events is conducive to improving and improving heart and lung function, accelerating the 800/1000 meter mark, which is very effective, and is also beneficial to strengthening the physique of the majority of students.

# 3.3 Improving Vital Capacity and Endurance Performance by Middle and Long Distance Running.

Vital capacity refers to the gas exhaled as much as possible after a maximum inhalation under the condition of unlimited time. <sup>[6]</sup> It is one of the important functional indexes reflecting the growth and development level of human body. Vital capacity test is the focus and difficulty in physical fitness test. Practice has proved that regular participation in middle and long distance running and swimming can make an individual's vital capacity reach more than 6000 ml, thus greatly improving the functions of cardiovascular and respiratory systems. Considering that swimming events in universities are expensive and require special places, while middle and long distance running requires no economic investment and can be operated more conveniently without any special places, it is suggested that students often take part in middle and long distance running to obtain ideal results in vital capacity and long distance running tests, which also plays an important role in improving the functions of various parts of the body.

# 3.4 Improve Explosive Force through Leg Strength Training to Improve Standing Long Jump and Sprint Results

Standing long jump is a test of explosive force. Explosive force requires exerting maximum strength in the shortest possible time. The magnitude of explosive force depends not only on strength, but also on the combination of strength and speed. In order to improve the result of standing long jump in physical fitness test, the problem of explosive force needs to be solved, and the training of leg strength is crucial to the improvement of explosive force. For the majority of students, sprinting is an important way to improve leg strength. Another important method is that students can tie sandbags on their legs so that they can train their legs with heavy loads so as to strengthen their leg functions. In this way, students' explosive power will be enhanced without

sandbags, which will greatly improve students' standing long jump performance and lay a good foundation for them to successfully pass the standing long jump test. The third method is to carry out training around the standing long jump itself, and pay attention to master some basic methods in the training process, such as squat jump, one-leg exchange jump, touch high jump and frog jump. The follow-up of these methods will greatly improve students' standing long jump and sprint performance tests in physical fitness tests.

### 3.5 Improve the Flexibility of the Body by Doing Aerobic

exercises. Sitting and lying forward flexion is a test item used to reflect the flexibility of human body. Flexibility refers to the stretching ability of joints, muscles, tendons and ligaments when the human body completes actions. The quality of flexibility depends on the anatomical structure of the joint, the volume of soft tissue around the joint and the extensibility of ligaments, tendons, muscles and skin. Flexibility is closely related to health. The improvement of flexibility plays an extremely important role in enhancing the coordination ability of the body, better exerting strength, speed and other qualities, improving skills and techniques, and preventing sports injuries. Flexibility is extremely important to the health of the majority of students, while sitting forward flexion is an important means of testing flexibility. For this reason, in order to improve the test results of college students' sitting posture forward flexion, it is necessary to improve the flexibility of students, and doing aerobic exercise is an ideal, cost-free, very simple and can stimulate the interest of the majority of students. No equipment is needed and can be carried out in a certain place. <sup>[7]</sup>In a word, the majority of students can fully exercise various parts of the body, such as hands, feet, legs, head, shoulders, buttocks, joints, etc. in the process of doing aerobic exercises. Therefore, the flexibility and extensibility of various parts will be greatly improved, which is of great benefit to improving the test results of sitting body flexion.

#### 4.Conclusion

# 4.1 Colleges and universities have certain capital investment, but the supervision needs to be strengthened.

The physical test environment needs to be improved. The attention and supervision of the competent department are the key links for the smooth progress of the physical test, which directly affect the initiative and enthusiasm of the test participants. Therefore, the competent department should perfect the supervision of physical fitness testing, deepen the testing practice, and really play a role. The survey results show that colleges and universities have invested a certain amount of money and purchased a certain amount of equipment for physical fitness testing, but the testing environment in some colleges and universities still needs to be improved.

### 4.2 There are certain test plans, but the management and publicity efforts are insufficient.

A clear and effective constitution test plan, responsibility to the post, and active implementation are the important premise and foundation for doing well the student constitution test and evaluation work. The results of the survey show that all colleges and universities have some trial plans, but they are not perfect enough and the implementation results are mixed. Educational administrative departments and colleges and universities cannot announce the selected test items two months before the test as required. Due to the limited types of instruments purchased, most colleges and universities choose the same test items every semester.

### 4.3 Teachers have a certain understanding of physical fitness testing, while college students generally pay less attention to it.

Teachers participating in the physical fitness test can actively organize and measure, and have certain cognition on the physical fitness test. Most teachers have a strong sense of responsibility, but due to the lack of attention to physical quality in the daily teaching of college students, teachers still have some deficiencies in the education of students, and there is no special education on the

purpose and significance of physical testing. Most students do not care about the contents and results of the physical fitness test, and they do not perform actively in the test process<sup>[8]</sup>.

### 4.4 It can report the test results statistically, but the test evaluation system is not perfect.

All colleges and universities are basically able to make statistics and report on the physical fitness test data on a regular basis, but there are still deficiencies in establishing a sound and effective physical fitness test evaluation system in colleges and universities. They cannot make full use of the real-time feedback from the campus network. The management of data only realizes the "upward" part, and the downward feedback and radiation function are insufficient.

#### 5. Recommendations

### 5.1 School leaders should clearly define the requirements of relevant documents and do a good job in various organizational work

Through the leadership's attention to strengthen the school multi-department cooperation, enhance the tester's sense of responsibility and overall concept. Appropriate increase in equipment investment to improve test efficiency. Before the test, the school will arrange the time in a unified way, give special guidance to the tester on the significance of the test and the method of using the instrument, make clear requirements on the quality specifications, and assign special personnel to manage and maintain the testing instruments, sites, equipment, etc.

### 5.2 Emphasis on Intercollegiate Communication

Educational administrative departments should actively raise funds and participate in the purchase of physical testing equipment in colleges and universities according to a certain proportion. <sup>[9]</sup> And play a guiding role, combined with the actual situation of various colleges and universities, and strive to achieve the requirements of determining and publishing the selected items two months before the test and not repeating the selected items in each academic year.

### 5.3 Formulate incentives and incentives to form a physical fitness testing system in colleges and universities

You can refer to the credit management method and link it with the results of physical education classes, and ask the testers and the tested to be serious and realistic so as to ensure the participation of all students.

### **5.4** Tight Testing Organization Clarifies the Division of Responsibilities and Relevant Training of Testers

Test personnel will be divided into relatively fixed groups, and special personnel will be assigned to check each item, so as to achieve the same goal of the same period, the same project, the same quality, and the same for 4 to 5 years.

### 5.5 Strict Data Management

In the process of testing, counselors will take the lead, strictly carry out the student's identity authentication, testers will standardize the operation, correct the errors in time, teachers will review and publicize in stages, and students will self-declare. If it is found that a certain test index of a certain student is abnormal, it should be retested in time.

#### 5.6 Attach Importance to Evaluation of Physical Fitness Test

The collected data should be analyzed and evaluated in a timely manner, and the results and analysis opinions should be fed back to the students and relevant teachers through the network, exercise prescription and other forms, so that the physique test results are not only a set of data, but also play an important role in enhancing students' physique and improving teachers' teaching level. Only in this way can the physique test be more meaningful.

#### 6.Conclusion

In order to implement the spirit of the central government's "school education should establish the guiding ideology of" health first "and earnestly strengthen physical education work", physical fitness testing provides a reliable reference basis for achieving the goal of enhancing students' physical fitness, and is also an important way for college students to understand their own physical fitness status. <sup>[10]</sup>Therefore, it is of positive practical significance to understand the relevant factors that affect the physical fitness test results of college students and to take active and effective countermeasures to give full play to the efficiency of college physical education and improve students' consciousness of physical exercise.

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