

The Effect of Rope Skipping on the Physical Test Results of College Students

Yingzhi Wu, Zhonghua Yuan*

Kunming City College, Kunming, Yunnan Province, China

* Corresponding author

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Abstract: At present, the physical health of college students is generally worrying. Problems such as excessive weight, staying up late, and decreased vision have extremely adverse effects on the physical health of college students. Rope skipping is highly praised by the European and American medical circles as “the most perfect healthy exercise”. Under normal circumstances, students' physical fitness, health status and motor function will also be effectively improved and strengthened when they are engaged in the rhythmic exercise of skipping rope. Based on the status of college students' physique and combined with the characteristics of rope skipping, this article studies its impact on the enthusiasm of college students' participation in sports, body shape, physical function, physical fitness testing, etc., trying to analyze the impact of rope skipping on college students' physical health, and is a related research on rope skipping.

1. Introduction

In 2014, the Ministry of Education of China revised the physical fitness test items for college students and promulgated and fully implemented the National Standards for Physical Fitness and Health of Students. For the first time, this standard clearly stipulates students' physical test scores, that is, students whose physical test scores are less than 50 points. In the junior or senior year of graduation, they will not be able to successfully graduate in accordance with the normal graduation process [1]. This regulation has aroused the attention of students and stimulated their enthusiasm for daily exercise.

2. The Content of the Physical Test of College Students

2.1 Body Mass Index

Whether the weight meets the standard is based on the BMI index of college students. The body mass index of boys is 17.9-23.9, and that of girls is 17.2-23.9, which are all within the normal range and can get the full score of the assessment; males and girls with BMI above 24 belong to the normal range [1]. Overweight and obesity can only get 80 points and 60 points; while those with a body mass index of 17.1 (female)/17.8 (male) are considered underweight and can only get 80 points.

2.2 Vital Capacity

From this standard, we can see that the Ministry of Education has different requirements for students' vital capacity at different learning stages, which requires students to conduct more physical training in their daily lives to continuously improve their vital capacity [2].

2.3 Dash 50 Meters

Sprint tests students' psychology, speed, reaction ability, instantaneous strength, etc. It has higher requirements for students and is more prone to accidents [2]. Students should eat lightly before the sprint physical test and perform necessary stretching exercises to prevent occurrence during the test.

2.4 Sitting Forward Bending

Through this item, you can intuitively judge the flexibility and stretchability of the muscles and skeletal joints of the students' lower torso, waist and other parts [3]. Therefore, in daily exercise training, students must not forget the body warm-up and stretching exercise before exercise, as well as the soothing stretching exercise after exercise, to protect the muscles from damage and improve the flexibility and flexibility of the body.

2.5 Standing Long Jump

Standing long jump requires students to exert instantaneous leg strength, lower limb strength, waist and arm perfect coordination, which requires students to pay attention to the training of leg muscles and improve the instantaneous tension of leg muscles in order to obtain better performance in the staged physical fitness test. score [3].

2.6 Pull-Ups (Male)/One-Minute Sit-Ups (Female)

The assessment is based on the difference in physical fitness between male and female students, and the unit is second. The pull-up program is mainly a comprehensive assessment of boys' arm muscle strength, breathing, back strength, etc., and is one of the important factors for evaluating boys' physical fitness. One-minute sit-ups are an assessment of girls' abdominal strength. They are difficult and high scores cannot be achieved overnight [4]. Long-term exercises are needed to achieve them.

2.7 Long-Distance Running 1000 Meters (Male)/800 Meters (Female)

The 1000/800-meter long-distance running for college students is also called endurance running. This result is the most important indicator to evaluate the physical fitness of students. It is of great significance to the development of students' health and can be used as a daily training item for students [4]. Before and after the assessment of the project, sugar should be added, and functional beverages can be consumed when necessary to help restore vitality.

3. Significance of College Students' Physical Fitness Test

3.1 Macroscopic Meaning

The physical fitness test conducted by college students is of great significance to the implementation of national laws and relevant documents of the education department. College students are about to embark on society, which is the hope and key force for future social development. Improving the comprehensive practical ability of college students is an important goal of colleges and universities, and students' physical fitness is one of the components of comprehensive practical ability [5]. Therefore, colleges and universities carry out related physical fitness testing work for college students, and through the assessment of physical education academic performance, they can urge college students to consciously carry out various sports activities and obtain good physical fitness in sports and fitness.

3.2 Micro Meaning

Sports events are usually collective events that require the collaboration and effort of many people. Therefore, while developing physical education courses, students can use sports events to broaden the scope of interpersonal communication and enhance the friendship and trust between classmates. For students with lively personality, this is a platform for them to show themselves; for students with introverted personality, through the communication and interaction with teachers and classmates during the exercise, they can gradually reduce their self-enclosed emotions and feel the collective harmony [5]. The warmth of the team is of great significance to the healthy development of oneself.

4. The Influence of Skipping Rope on the Physical Test of College Students

The development of rope skipping is not limited by space and time, and its diverse sports characteristics and sports effects have been loved and participated by the general public since ancient

times. With the continuous deepening of the reform of physical education, the education investment and emphasis on physical education in major universities has gradually increased. Rope skipping has gradually become an important teaching content in most school physical education classrooms, which has a very good advantage in improving the physical health of college students [6].

4.1 Analysis of Skipping Rope to Improve the Enthusiasm of College Students to Participate in Sports

Rope skipping is a systemic aerobic exercise that can better promote the overall exercise of the body. During the exercise, it promotes the comprehensive exercise of the nervous system and heart and other organs and plays an important role in promoting the development of physical and mental health. In the process of most college students participating in sports, the primary consideration is the amount of exercise and whether it is helpful to the body shape. Skipping rope fully meets the primary factors for college students to participate in sports. Skipping rope is divided into different levels according to the degree of difficulty of the movement. And it can be a sports event that can be participated by single, double, or multiple people, and the participation is high in entertainment, which can better improve the participation of college students in sports events [6]. In addition, in the process of participating in rope skipping, it can be combined with music, which plays an important role in cultivating students' physical coordination and movement continuity. Students can combine dynamic music to change rope skipping actions or change the number of participants. Make this sport have different fun, reach the realm of the unity of people and ropes, while exercising physical fitness, play a role in entertaining the body and mind.

4.2 Analysis of the Effect of Rope Skipping on the Physical Health of College Students

Rope skipping has a long history in China. Rope skipping is a combination of the elegance, smoothness, and changeable movements of rope exercises, which has a certain effect on physical fitness. In recent years, the physical fitness test of college students has been a major physical problem that plagues parents, society, and the people [7]. The physical fitness of college students, such as cardiopulmonary function, endurance, and agility, has always been a major problem that emerged during the physical fitness test. Skipping rope is a major problem. A traditional sports event, it combines aerobics, pop music, dance and other emerging sports on the basis of skipping rope, which can play a positive role in promoting the physical health of college students, as shown in Figure 1.

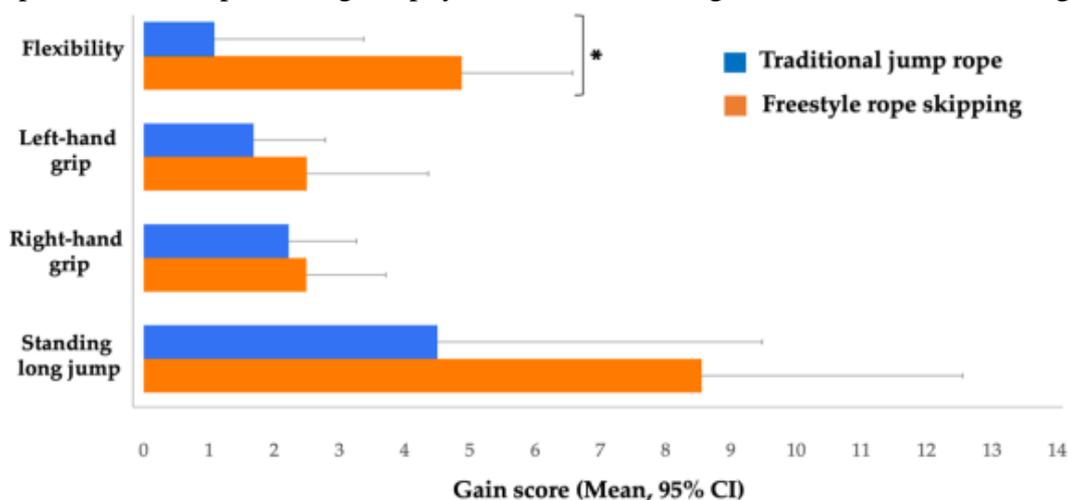


Fig.1 Various Ways of Skipping Rope

4.3 Effect on Body Shape

Body shape is the external shape and characteristics of the body. Body shape is generally expressed by length, girth, weight, and their interrelationships [2]. Girls have always paid special attention to their body shape. Aerobics, sports dance, yoga and other aerobic exercises have always been the first choices of college students in the public physical education options of colleges and

universities. The main reason is to better maintain their body shape [7]. Rope skipping exercise can improve body composition, manifested in reducing body fat and increasing bone mass, etc., which has a great help in shaping a good body shape. In the process of skipping rope, the body consumes a lot of calories. Therefore, the weight loss effect is very significant. Long-term persistence can strengthen the muscles of the whole body, eliminate the excess fat on the buttocks and thighs, make the exerciser's body more fit, more agile, and more focused. Stable, as shown in Figure 2.



Fig.2 Skipping Rope Makes the Body More Fit

4.4 Effect on Body Function

Body function refers to the life activities represented by the whole human body and its various organs and systems. The development of body function can increase the strength of respiratory muscles and increase the range of thoracic movement, thereby improving respiratory function [8]. In terms of exercise volume, skipping rope for 10 minutes is almost the same as jogging for 30 minutes or dancing for 20 minutes. It is a time-consuming and energy-intensive aerobic exercise, which has an important role in promoting the vital capacity of the body; in addition, rope skipping is a whole-body exercise.

4.5 The Effect on Physical Fitness

Physical fitness generally refers to the strength, speed, endurance, agility, flexibility, and other functions of the human body during activities. Physical fitness is an external manifestation of the strength of the human body [8]. In exercise, labor, and daily activities of the human body, under the regulation of the central nervous system, the comprehensive performance of various organ system functions, such as strength, endurance, speed, agility, flexibility, and other body abilities [9], is shown in Figure 3. Rope skipping plays an important role in promoting the development of body motor organs, visceral function development, and bone development. It also has a vital impact on human sensitivity, endurance, strength, and other aspects. Relevant studies have shown that: insist on skipping for 15 minutes the amount of exercise is equivalent to 3 rounds of tennis in singles, 4.5km by

bike in 9min, 637m in 23min, and 1600m in 8min. Therefore, from the perspective of enhancing physical fitness, rope skipping is not only a healthy exercise for both body and mind, but also a good exercise. An important sport to improve the physical ability of college students.

Variable	Weighted jump rope group (n=8) Mean±SD	Standard jump rope group (n=9) Mean±SD	Control group (n=8) Mean±SD	P
Age (years)	15.0±1.0	14.1±1.3	14.4±1.3	0.30
Height (cm)	166±6	165±5	161±5	0.13
Weight (kg)	59.4±8.3	57.7±9.7	50±7.8	0.76
BMI (kg/m ²)	21.4±1.9	21.2±3.1	19.1±2.0	0.15

Fig.3 Skipping Rope Can Improve Physical Fitness

4.6 Analysis of the Influence of Skipping Rope on Promoting College Students to Improve Their Physical Health

Because of its unique sports characteristics and project characteristics, rope skipping has certain advantages in the college public sports optional courses, and students' acceptance of skipping rope is relatively high, and the degree of college students' love for skipping rope starts from the middle and elementary school's inter-class sports activities [10]. It reflects that, no matter from the venue or the skills of skipping rope, rope skipping is undoubtedly an advantageous sport to attract college students to actively participate in sports projects. They can feel the joy of rope skipping from music and movements, and from happy sports. In the process of training, the effect of physical exercise and improvement of physical test scores is achieved. Moreover, because rope skipping is not affected by factors such as venues, equipment, weather, etc., it can be carried out at any time and any place. Therefore, it can be used for college students after class. Persist in practice to improve a strong guarantee [10].

5. Summary

Rope skipping originated in China and has a history of thousands of years in China. Whether in the Tang Dynasty, Song Dynasty, and Ming Dynasty, there are detailed records on skipping rope. Rope skipping is the essence of rope skipping, which has developed rope skipping into a new development. , Mass sports that conform to the trend of the masses. With the development of school sports and the "National Fitness Test", rope skipping has gradually become a fashionable sport in school sports, and it also plays an indispensable role in the physical fitness test of college students. College students account for a relatively large number of college students. The physical fitness test scores of the first group of people have always attracted attention. The proposal of skipping rope has an important effect on the body shape and physical function of college students, improving the enthusiasm of participating in sports, and improving the physical test scores.

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