

# Strengthen badminton training and improve students' physique

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**ABSTRACT.** *The physical quality of college students has a great influence on their badminton tactics and level. Therefore, in the special badminton teaching in Colleges and universities, teachers should organize the special physical quality training for students in a targeted, planned, systematic and scientific way, improve the function of all the body organs of students as much as possible, ensure that students can properly and scientifically apply various sports techniques in the fierce and high-intensity competition, and reduce sports injuries to the maximum extent with the help of good physical quality. The emergence of harmful situation, and ultimately achieve the desired results of the game. This paper mainly focuses on the physical quality training strategies of College Badminton students. A careful study was made.*

**KEYWORDS:** *College; Badminton; Special; Students' physical quality; Training strategy*

## 1. Introduction

Badminton is an important sport in our country. With the continuous change and improvement of the competition rules, the scoring standard has changed from the traditional "score without losing the ball" to the new standard of "score per ball, 21 points per game". Under the new scoring standards and rules, the competition time of badminton is obviously shortened, which makes the attack and defense speed and competition intensity of the competition have been significantly improved, which has a higher standard for the physical quality of athletes, especially for the endurance and speed of athletes. In this case, in order to better meet the competition standards, athletes need to improve their physical quality with effective training measures according to the characteristics of sports.

## **2. The body of College Badminton students**

### ***2.1 The effective strategy of training endurance quality***

(1) Sprint. 400m and 200m sprint, complete 3 groups of training at a time. Run for a limited time of 3 500m and finish two workouts a week. The physical education teachers should increase or decrease the training amount of sprint appropriately according to the actual situation of the players. (2) The whole field moving step and swing practice. Swing fast practice, the practice time is 1min or 30s, continuous jump up swing. Then, complete a 2-minute walk. Physical education teachers should organize 5 groups and 3 groups of different load exercises according to the specific situation of the players. (3) Defensive and offensive training. In the process of physical quality training of College Badminton students, physical education teachers should arrange one-on-one, one-on-one, two-point control and four-point training for 30 minutes or 20 minutes to carry out the whole field defense and confrontation training without stopping. The ultimate purpose of training is to help students to be familiar with the ball path, improve various sports tactics, and promote students to continuously enhance their speed endurance in the field[1].

### ***2.2 Effective strategy of training strength quality***

(1) The method of training the strength of lower limbs. General training measures can be divided into two types: non weight training and weight training. Non weight bearing training refers to the training forms that are mainly used to overcome the influence of body weight in jumping, such as step jump (alternating step step, front foot landing, foot platform step, etc.), cross jump, abdominal jump, vertical jump, jump, rope jump (double swing), etc. Weight training mainly refers to the weight-bearing movement steps, such as carrying sandbags training, which requires athletes to carry out the movement step training under the weight-bearing state. In general, the weight-bearing type includes 40kg step, half squat, half squat jump, 50kg full squat, 20kg frog jump, etc. The number of training groups for weight training needs to be determined in combination with the actual situation of the athletes. If the ability of the organism is reduced during the training, the training needs to be stopped immediately. In the specific training process, whether it is weight-bearing training or weight-bearing training, athletes need to be ready for warm-up before training, in order to effectively prevent joint sprain or muscle strain.

(2) The method of training upper limb strength. The training methods of training the upper limb strength of college athletes can also be divided into two types: weight-bearing and non weight-bearing. Specifically speaking, the methods of weight-bearing practice are lying push, rapid flat push, rubber band pulling for swing training, swing practice with the help of hammer, etc. On the other hand, fast arm bending exercise can also enhance the strength of the fingers and wrists of athletes. The practice of not bearing weight mainly refers to the quick grip and swing, focusing on the training of players' hitting speed. (3) The method of training

back muscle and waist abdomen strength. The main methods of training the strength of waist and abdomen of college athletes are plate support, straight legs and two heads up, sit ups, etc. The main methods of training the strength of the back muscles of college athletes are back flexion, supine and right angle rising, etc. Physical education teachers should reasonably determine the number of training groups and times in combination with the actual situation of athletes[2].

### ***2.3 Effective strategy of training speed quality***

The sport speed of badminton refers to the speed at which the players complete the swing and movement in a certain period of time. As we all know, badminton sports technology has the characteristics of "live, accurate, ruthless, fast". Specifically, "fast" is in the most important and core position in badminton. In other words, the "live, accurate and ruthless" in the swing and movement of athletes need to be "fast" in order to give full play. It can be seen from this that speed plays an important role in the physical quality of college badminton players, which is mainly reflected in movement speed, movement speed, reaction speed and so on. The main methods of training college athletes' reaction speed are: watching the signal for step training, listening to the command for running training and fast turning, stopping and starting running, etc. This requires physical education teachers in Colleges and universities to guide students to move quickly in sports and pay high attention. Only in this way can the reaction speed be improved. When training the movement speed of college athletes, we can use the methods of 30 m, 20 m turn back running, four corner running, killing the Internet pace and so on to promote the continuous improvement of the movement speed of athletes. The methods of Training College Badminton Players' movement speed include fast blocking, left and right side running, direct forward and backward running, double swing rope skipping, fast swing and so on. College Badminton teachers should reasonably determine the number of training groups and times in combination with the actual physical conditions of athletes[3].

### ***2.4 Effective strategies for training flexibility and sensitivity***

In the badminton field, there are often left and right back and forth movements, sudden starts, sudden stops, leaps in the air, kicks on the ground, and large turns. In addition, badminton has fast flight speed and variable direction, which puts forward very strict standards for the physical flexibility of athletes, especially the sensitive quality. Only by ensuring that college athletes have high body sensitivity and flexibility, can they move flexibly in the competition field, lay the foundation for the full play of the competition level, and greatly reduce the occurrence of sprains and other sports injuries. In the special training of badminton in Colleges and universities, the methods of training the athletes' body sensitivity are as follows: before and after jumping, left and right leg splitting, left and right hip rotation, side cross step, small step running, changing direction running according to the

command, etc.; the training methods of training the badminton athletes' body flexibility are as follows: wrists around eight characters, around Achilles tendon, pulling ligament, such as leg ligament, shoulder ligament[4].

### ***2.5 Effective strategies for ball training***

In badminton sports, multi ball training can promote the improvement of athletes' comprehensive physical fitness, and it is also the core way to optimize athletes' badminton sports ability and tactics. Multi ball training mainly refers to the control of training load, density and intensity of athletes in a certain period of time in various speeds, frequencies and rhythms with the aid of uncertain number of training times and groups. Generally, the number and times of one training are determined by the training objectives and training contents. If the training content is a specific technical action, then the training density should be higher and the number of times should be more. Usually, 6-8 times are called one group. There is no too long rest time between each group. 3-4 people take turns once. The rhythm and the times of ball supply are slow, which can help students to shape their movements. In general, 20-30 times of ball training is called group 1, 3-4 times of one time. 3-4 people in each group rotate. No too long rest time can be reserved between the two groups. The rhythm and speed of ball supply are slow, which can make students better familiar with the ball path. Aerobic endurance exercise can be designed 20-25 times in one group, 4-5 times in one group, 3 people in one group to rotate, the rhythm and speed of the ball supply is slow. When training the speed endurance of college badminton players, generally 20-25 times a group, a group of three people rotate, the supply and demand rhythm and speed are faster. For multi ball training 15-20 times, 1 time 5-6 groups, 1 group 3-4 people rotation, the rhythm and speed of ball supply are faster[5].

### **3. Points for attention in physical quality training of College Badminton students**

(1) According to the characteristics of the project, the physical quality training methods of athletes should be designed properly, and the physical quality training of athletes such as flexibility, sensitivity, speed, strength and endurance should be carried out to promote the improvement of their organs and functions[6]. (2) When training badminton players' physical quality, tactics training should be infiltrated properly. When arranging training contents, we should pay attention to sports characteristics and teach students sports techniques with strong applicability. (3) Due to the great difference of athletes' physical quality, teachers should adjust the training contents and methods reasonably according to the characteristics of athletes' gender and age, and set up the training plan effectively and reasonably. After completing the training task, teachers should guide students to make effective adjustment to prevent sports injury[7]. (4) Pay attention to the psychological quality of athletes. Because there is a big difference between the competition mentality and the training mentality, teachers should adjust the two kinds of mentality of athletes, only in this way can we ensure that athletes can develop their strengths and avoid

their weaknesses, and play supernormal in the two kinds of good mood. (5) In multi ball training, the number and times of training groups, the interval, frequency and speed of ball supply are different, and the training effect is also different. Therefore, teachers should adjust flexibly according to the actual situation[7].

#### **4. Conclusion**

Based on the great influence of physical quality on Athletes' sports ability and level, in the special training of badminton in Colleges and universities, teachers should pay full attention to the physical quality training of athletes, and adopt effective methods to train their endurance, speed, strength, flexibility and sensitivity, and comprehensive physical ability in combination with their specific characteristics, so as to maximize the physical quality of athletes. In the end, it provides guarantee for them to achieve excellent results in badminton.

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