

The Effect of Core Strength Training on Badminton Skills

TANG YONG

Hunan University of Humanities, Science and Technology

Abstract: Core strength training is an important training method, which has an important impact on many sports, including badminton. The training of core strength can effectively improve the batting skills of badminton. For rubbing and putting, hooking and picking, it can not only change the basic batting effect of badminton, but also make the physical function of athletes and badminton sports form a certain coordination. The actual batting efficiency will be quite high. This paper expounds the core strength training, studies the influence of core strength training on Badminton technology, aims to summarize a set of scientific and reasonable core strength training methods, to promote the improvement of players' physical fitness and the development of badminton.

Keywords: core strength; batting skills; badminton

With the call of national fitness for all, sports are becoming more and more popular, and people are pursuing more and more sports forms. Badminton is a popular sport. Badminton is light and dexterous, and can play a good fitness effect. People's love of badminton has prompted people to study badminton in depth. Core strength training is an important part of badminton training. The application of core strength training in badminton training can improve the reactivity of athletes. This paper combines core strength training with badminton, studies its role in badminton training, and analyses and discusses it. In recent years, core strength training has attracted wide attention in competitive sports training, which is regarded as an important part of athletes' physical training by many experts and scholars. In the current badminton training, the individual difference of athletes' training is becoming smaller and smaller. In order to improve the level of badminton athletes in our country rapidly, we must find new and efficient training methods. Badminton training, we know, requires athletes in the body of a number of muscle groups to work together, strong core muscle groups in the movement of athletes' body posture, sports skills and special movements play an important role. Any movement is not a single movement. Core muscle groups play an important role in stabilizing the center of gravity and transferring force in coordinated movement, and play an important role in the whole body's coordinated movement. The training method of core strength can make athletes better play to the stability of sports and improve the strength in the process of sports. At the same time, it can improve the duration of athletes' sports and avoid a series of problems, such as muscle strain, which are caused by long-term training, and also can improve the efficiency of sports. Therefore, core strength training is of great significance to badminton batting technology, which deserves our study.

1. Definition of Core Strength Training

1.1 Connotation of Core Force

At first, the research on core strength began with the need of sports medicine. Experts found that core

strength plays an important role in enhancing the strength of athletes' core body parts. It can not only produce strength, but also transmit and control strength. Core strength has a far-reaching impact on the development of sports and deserves to be widely promoted.

1.2 The Role of Core Strength Training

Core strength training can promote the coordination ability of athletes in controlling body and limb movements, and make the training effect better. The prominent feature of core strength training is the control and domination of nerves over large and small muscle groups. Through the exercise of muscle groups and the coordination and cooperation of large and small muscle groups, the coordination between strength and body is enhanced, the training effect is effectively improved, and the athletes' skills in competition are promoted.

2. The Effect of Core Strength Training on the Physical Fitness and Ability of Badminton Players

In the process of badminton matches, athletes should have good physical fitness and the ability to control body balance, whether in the baseline pull straight high, diagonal high or flat high ball speed change and smash. Athletes always adjust their body position reasonably in the course of competition and use various technical movements to change attack and defense, so as to keep balance between control and being controlled.

Many athletes in badminton training can play a good variety of badminton technical movements, the quality of return is relatively high, but often once entered into the formal competition, they cannot control the body very well, the center of gravity is unstable, the quality of return is significantly reduced, the passive scene makes it lose the chance to win. However, after the core strength training, we can see from the experiment that the performance of the training group is much higher than that of the control group without core strength training, and there are very significant differences. The reason for this difference is that core strength training strengthens the deep muscles and small muscles of the core part of the body, ensures that the body can coordinate more muscles while exercising, enhances the absolute strength of the muscles, and improves the athletes' control and coordination of the body in the competition. The ability to balance. Long-term core strength training can increase the coordination of the body. In the process of badminton batting, both the endurance and the recovery ability of the body can be well maintained. In the daily life of ordinary people, they will not pay too much attention to the core strength of the body training, so in badminton sports, it is prone to a variety of physical disharmony. In the traditional badminton training, almost all the training contents focus on the training of human limbs, but neglect the importance of the body trunk, that is, core strength training. Such training has considerable problems, and it is easy to bring serious security risks to the later movement of athletes, such as shoulders and knees. There will be varying degrees of strain and injury. These players cannot maintain a high level of badminton batting in actual badminton training. If the Badminton Coaches pay more attention to the core strength of badminton players in actual training and strengthen the core strength of badminton players in real time through diversified training methods, they can save a lot of athletes. Basic competition energy and various skills can also play a corresponding role to achieve excellent results.

3. It is helpful to improve athletes' body balance ability, balance energy output and technical level

In the process of badminton training, core strength training is used. The main reason why core strength training can improve badminton training level so rapidly is that core strength training plays a great role in improving athletes' body balance ability, which is badminton. One of the necessary abilities for sports. As we all know, badminton is a fast-moving sport, which requires flexible body and changeable movements. Besides running and jumping, it also requires kicking, striding, jumping and jumping. Sometimes it also needs to take off to complete spiking. If it does not have the corresponding balance ability, it is very difficult to complete these movements. Change of movement. Core strength training can improve the body's coordination ability, effectively enhance the body's balance and coordination. In traditional badminton training, it is generally simple limb training, which enhances the coordination of the limbs, but can not achieve the overall coordination of the body. Core strength training can effectively remedy this defect, quickly improve the balance and coordination of the body, and achieve the fastest improvement of badminton competitive level. In the past badminton training, attention was often paid to the speed of athletes. Training athletes to win with speed in serving and spiking would result in excessive consumption of athletes' physical energy, often the competition is not over, athletes' physical ability is seriously overdrawn, affecting the results of the competition, and even withdrawal. The situation. Core strength training can balance energy output, coordinate all parts of the body to achieve output while controlling the output parts, so as to avoid excessive consumption of the strength of a part. This kind of energy control can effectively realize energy distribution, explode when the explosion occurs and converge when the convergence occurs. This kind of energy coordination control can better exert body strength and improve the level and stability of badminton movement.

4. The Effect of Core Strength Training on Badminton Players' Hitting Techniques

Badminton is a fierce sport, involving many rounds of attack and defense conversion. Athletes are constantly changing in the course of competition. Badminton technology is diverse and flexible. There are many times of sudden stops and sudden start. The rhythm of attack and defense conversion is fast. Front-court batting, as an important technology in badminton, has a heavy weight. Important position. The threat of batting in the front court is greater, the flight distance of badminton is closer, the reaction time left to the opponent is shorter, and the ball landing is faster, which usually makes the opponent unprepared. It is an important scoring technology, and also an important means to find fighters and mobilize opponents. After 12 consecutive weeks of core strength training for badminton players, we can see that both core strength training and traditional training can effectively improve the Front-court batting skills of badminton, and the performance of core strength training group is better than that of traditional strength training group. The training of core strength improves the forecourt batting technique not only because it improves the physical quality of the sport, but also the ability of body balance and coordination. The improvement of these abilities is also very important for the forecourt batting, especially for the passive batting technique of the forecourt, including hooking and picking. Skills of hooking and picking are mostly made by players in passive situations. For example, opponents have high quality of putting small balls in front of the net, the ball rolling net or the players themselves have been in a passive position, and they have no time to adjust their bodies to actively carry out high-click balls and are forced to lower-click balls. Often use picking and hooking techniques, picking refers to picking the ball as high as

possible and as far as possible, gaining valuable time for adjusting the center of gravity to gain a favorable position for oneself, and making full preparations for subsequent hits, which belongs to one kind of defensive techniques. In contrast, hooking refers to gently flicking the opponent's forecourt ball back to the opponent's court. In the other corner of the field, the hook often disturbs the opponent's normal game rhythm, turns passive into active, forces the opponent's technical movements to change, and can seize the opportunity to reverse the situation on the field. The similarities between the two techniques require that athletes have a high control ability of the body, can adjust the center of gravity in a relatively short period of time, and hit the ball through the transmission of strength. Core strength training can effectively stimulate the potential of small muscle groups and deep muscle groups of the body, and make them get full exercise. It plays a positive role in enhancing muscle strength and gathering more muscles to work together. Through the analysis of the experiment, it can be concluded that the training of core strength effectively improves the balance ability of the athletes' trunk, and promotes the improvement of the players' forecourt batting level. In the research of pushing and rubbing techniques, it is found that the core strength training group and the traditional strength training group can effectively improve, but there is no significant difference between them. The reason is that when players make rubbing and putting movements, they are often in the situation of active attack. At this time, the players hit. Sphere position is higher, the body is relatively stable, mainly through the fingers. The wrist and forearm are used to hit the ball and control the angle of the shot, so as to ensure the quality of the shot and win the initiative, which is different from the passive situation in the front hook and pick. The advantages of core strength training can be well brought into play when more muscles are involved in hooking and picking. Core strength training not only improves the strength quality of athletes,

5. The Effect of Core Strength Training on Alleviating Athletes' Fatigue

Because badminton competition has a considerable intensity and a very long time, so the rest time for athletes will not be sufficient, such a situation makes athletes must have a larger core strength. Long-term badminton sports easily lead to badminton players too tired, and once fatigue occurs, knee joint is prone to various strains. In professional badminton players, knee strain has almost become a common phenomenon, and this joint strain is often the most serious. In order to strengthen the ability of athletes to alleviate their fatigue, it is necessary to strengthen the training of athletes' core strength in peacetime training so as to alleviate athletes' fatigue in real time and minimize the severity of sports injury.

6. Conclusion

In short, core strength training is extremely important in the whole badminton training. Coaches or athletes should also strengthen the core strength training in real time during this period. In the specific training process, different sports schools and teams should formulate the most reasonable training plan for the core strength of badminton players according to their professional level and badminton intensity, so as to improve the core strength of athletes in an all-round way.

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