The Application and Development of Core Strength Training in College Basketball Training

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Abstract: The core strength training in basketball training is a brand-new training concept. Its practicality is very strong. Basketball is a kind of sport that requires a lot of strength. Athletes can use core strength training to make basketball training more improved. On the one hand, the training of core strength in basketball training can make basketball players master their own balance and stability and prevent the occurrence of sports injuries. On the other hand, basketball players should combine their own characteristics and enhance their physical fitness and quality through the core strength training of instruments or non-devices, so as to cultivate more skilled professional skills.

1. Introduction

With the continuous development and change of training methods, core strength training has become more and more important in basketball training. The urgent need for basketball training has promoted the development of core strength training. The core strength training is mainly for the athlete's torso. The athlete's trunk plays a very good role in the movement. It can make the upper and lower limbs of the human body more harmonious and make the various parts of the body work more closely together. In basketball training, basketball players begin to use core strength to train, but there is still a lack of understanding of core strength training, which leads to the inability of deep analysis of core strength training, so that basketball training cannot be deeply integrated with core strength training. Therefore, we must constantly improve the basketball players' understanding of core strength training of core strength training methods, so that core strength training can be more comprehensive and deep application in basketball training^[1].

2. The role of core strength training in basketball training

Balance and stability are the main contents of core strength training. Through the balance, the athlete's movement center of gravity is controlled and the upper limbs and lower limbs can transmit power more smoothly, so that the athletes can exercise smoothly. The stabilizing effect is that the stability of the athlete is enhanced and the core part of the athlete's body is stabilized. In basketball, athletes have stability and balance, which can guarantee the better development of basketball. Therefore, the core strength is of great significance to basketball training and should be widely praised by basketball players^[2]. The role of core strength training in basketball training is shown in

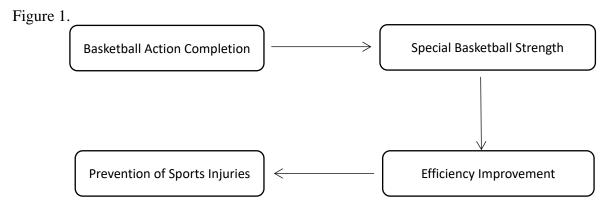


Figure 1 Role of core strength training in basketball training

2.1. The important role of basketball action completion

In basketball, athletes need to have both agility and quick movements, which must be maintained while maintaining balance. The training of core strength can improve the balance and stability of the athletes, so as to ensure a variety of perfect offense. In basketball games, athletes will consume too much physical energy. If basketball players do not have enough physical strength, it will affect the shooting percentage and will also result in dull offense and defense conversion. These problems all illustrate the lack of basketball training and the core strength training can continuously improve the physical fitness of basketball players, which can greatly improve the physical fitness of basketball players to present every action in a wonderful way^[3].

2.2. The important role of special basketball strength

The special basketball power greatly affects the training level of basketball players. Only by strengthening the special strength training for basketball players can basketball players have strong physical strength and quality. In order to improve the basketball movement, basketball players need to coordinate with the muscle groups to ensure that the coordination of the muscle groups can make the basketball players' movements more perfect. The core strength can bring better coordination to the muscle groups. It is especially necessary to strengthen the training of basketball players' core strength. Through the training of core strength, the basketball player's center of gravity is more stable and basketball players can keep their body well during exercise. Balance, so that smooth force transmission between the upper and lower limbs. At the same time, the core strength training can better promote the generation of special basketball strength, so that basketball players can constantly train a variety of skilled professional skills.

2.3. The important role of individual efficiency improvement

Basketball is a very special sport. It requires sufficient strength and flexibility in the legs, as well as the transmission of leg strength to the body and upper limbs for a variety of difficult technical moves. In the basketball game, all the strengths in the athlete's body can be integrated through the core strength, which makes the leg strength stronger, can improve the stability and coordination of the body and guarantee the standard completion of the basketball action. Give basketball a better boost. Therefore, the core strength can play a better role in basketball and can affect basketball more. Through the development of core strength training, the coordination and stability of basketball players can be improved, which can make basketball players have a powerful explosive power. Therefore, basketball players can use the core strength training to achieve better efficiency and bring greater changes to basketball players^[4].

2.4. The important role in the prevention of sports injuries

Antagonism is the main feature of basketball. Basketball must complete the magical movement of the technical movements in the running, but also carry out fierce attack and defense in the confrontation. Therefore, there is often an accident in which athletes are injured in basketball. If there are not enough precautions for this, then the basketball field will become a battlefield and the athletes will suffer various injuries on the battlefield. The most common of these is muscle damage. In basketball, the core part of the athlete is the waist, so the waist is also the most vulnerable part of the injury.

3. Application of core strength training in college basketball training

3.1. Continuous innovation in core strength training

The core strength training in basketball training has become an indispensable training method and the core strength training is mainly carried out through two kinds of equipment training and non-device training. The equipment used in the core strength training includes suspension equipment, Swiss ball, semi-circular balancer, etc. Basketball players can use these instruments for core strength training. For example, athletes can use Swiss balls to complete comprehensive training. A semi-circular balancer is used to balance the upper limbs and torso. Often relying on these instruments for practice has obvious practice effects. But non-instrument training can also bring greater improvement to basketball players. Non-instrument training means that basketball players do not rely on instruments and use limb movements to complete the training. The main training methods include: one-handed arm support on the ground, lifting the opposite foot and then carrying out the opposite direction of practice. You can also use your hands to support your body on the ground and then raise one foot for training. More core strength training is needed to strengthen the training of basketball players and to develop and learn useful training methods. The core strength training method is continuously developed and innovated, so that basketball players can continuously improve themselves in the process of practice, constantly summing up the experience and making the core strength training constantly $perfect^{[5]}$.

3.2. Continuous optimization of core strength training mode

Basketball training should be linked to core strength training at all times. Only by fully integrating core strength training into basketball training can basketball training become more effective. At the same time, we must pay attention to the continuous optimization of core strength training and make professional transformation of core strength training, so that core strength training becomes the principle followed by basketball players training, so that basketball players can use core strength to train a certain part of the body.

3.3. Realize the continuous strengthening of core strength training management

In the process of basketball training, because of the shortage of training time, there are often many problems in the training of core strength, such as systemic deficiency, insufficient strength, etc. The core strength training with problems will be accepted by basketball players, but will It causes serious performance problems, which means that even the training of core strength can not improve the quality and skills of basketball players. Therefore, to strengthen the core strength training, the core strength training should be carried out according to the different characteristics and advantages and disadvantages of different basketball players. The strengthening effect of strength training management is shown in Figure 2. As can be seen from the figure, the strength enhancement gradually stabilizes.

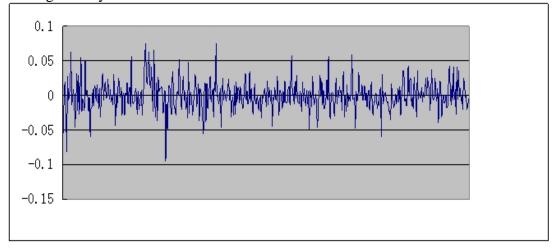


Figure 2 Strengthening effect of strength training management

4. Notes on core strength training in basketball training

For basketball training, traditional basketball strength training plays a more important role. Therefore, in the process of basketball training, the core strength training method should not be used alone. The traditional basketball strength training and core strength training should be combined with each other. Make up and ultimately achieve a more ideal training effect. Secondly, in the early stage of core strength training, there will be many athletes who can't keep up with the beat, so we must pay attention to the rhythm of core strength training and should slow down appropriately. Finally, because the core strength training is constantly changing, different basketball players play different roles and their responsibilities are also different. Therefore, in the training of core strengths, positional arrangements should be considered and core strength training and practice should be Form a unity and ultimately achieve a better core strength training situation.

5. Conclusion

Basketball training is more and more inseparable from core strength training. However, there are still many problems in core strength training in basketball training. The lack of cognition of the reasons for core strength training has finally resulted in a low effect. Therefore, we must pay attention to the basketball movement, special strength, individual efficiency and prevention of injury in the core strength training. Only in this way can the core strength training be more widely developed, so that the basketball exercise can show strong with the help of core strength training. The vitality will eventually bring a wonderful world to the basketball career.

References

[1] Schilling Jim F,Murphy Jeff C,Bonney John R,Thich Jacob L. Effect of core strength and endurance training on performance in college students: randomized pilot study.[J]. Journal of bodywork and movement therapies, 2013,17(3). [2] Qu Ping, Wang Chaoying, Zheng Weitao. Application of SEBT on Core Training Measurement on Fin Swimming Athletes [P]. Future Computer Science and Education (ICFCSE), 2011 International Conference on, 2011. [3] Mengyao Xie. The Role of Core Strength Training in Badminton [A]. Singapore Management and Sports Science Institute, Singapore, Academic Conference Institute, USA. Proceedings of International Conference on Education & amp; Educational Research and Environmental Studies(EERES 2016)[C].Singapore Management and Sports Science Institute, Singapore, Academic Conference Institute, USA, 2016:3.

[4] Chao Fan. Study on the Training of Core Strength in the Competitive Aerobics Sports[A]. Institute of Management Science and Industrial Engineering. Proceedings of 2017 International Conference on Advanced Education, Psychology and Sports Science(AEPSS 2017)[C]. Institute of Management Science and Industrial Engineering: (Computer Science and Electronic Technology International Society), 2017:4.

[5] Yuchen Liu. Analysis on the Role of Core Strength Training on Badminton Training[A]. Singapore Management and Sports Science Institute, Singapore, International Communication Sciences Association, Hong Kong. Proceedings of 2017 4th ICMIBI International Conference on Training, Education, and Management (ICMIBI-TEM 2017)[C].Singapore Management and Sports Science Institute, Singapore, International Communication Sciences Association, Hong Kong, 2017:5.