

Training Method for College Basketball Players Guided by Strength and Quality

Gang Yang

Department of Physical Education, Shanghai Maritime University, Shanghai, 201306, China
yanggang97@126.com

Abstract: Basketball is a sport with high requirements for strength, explosive power, endurance and physical confrontation ability. Basketball needs to coordinate the whole body strength, and the strength quality of athletes is related to the completion level of basketball action. For basketball players, it is necessary to conduct strength quality training to ensure that they can perform basketball movements at a high level. Taking college basketball players as an example, this paper first analyzes the importance of strength quality training for college basketball players, then analyzes the shortcomings of strength quality training for college basketball players, and finally puts forward the methods of strength quality training for college basketball players, in order to provide reference opinions for scientific training of college basketball players.

Keywords: College basketball players; Strength quality; Strength quality training; Basketball movement

1. Introduction

Basketball is one of the three major ball sports in the world. It is a comprehensive sport that combines speed, strength, endurance, skill, and teamwork. Basketball has a wide audience in China. According to relevant survey data, China has 125 million general basketball population, 76.1 million core basketball population, which is enough to demonstrate the popularity degree of basketball. Under the background of building a powerful sports country, basketball enters the university, The "Opinions on Deepening the Integration of Sports and Education to Promote the Healthy Development of Youth" indicates that the campus sports work is formally in line with our country's competitive basketball reserve talents training, developing the college basketball movement, training the college basketball players is an important way to cultivate basketball competitive talents. With the development of basketball, the strength of the players in the field of competition is increasing day by day. Strength quality is the key ability to support the basketball players to complete the high-intensity competition and improve the technical and tactical performance. Strength quality refers to the physical quality of basketball players who need to overcome various disturbances and complete complex and difficult movements ^[1]. College basketball players are the reserve force in the future field of basketball competition, so we should pay attention to improving the strength quality level of college basketball players. The purpose of this paper is to discuss the strength quality oriented training methods of college basketball players, which has practical significance to improve the strength quality level of college basketball players.

2. The Importance of Strength and Quality Training for College Basketball Players

2.1 Improve the level of basketball skills

The strength quality training of basketball players can significantly improve their explosive power and speed of movement, so that basketball players can have the ability of quick breakthrough, steal, block and so on, and have more advantages in basketball competitive games. Improving the strength and quality level of basketball players is conducive to improving the bouncing ability of basketball players. Basketball players must have good bouncing ability, strengthen the strength quality training of basketball players, among which the longitudinal jump, squat and other training methods can improve the bouncing ability of basketball players, so that basketball players in the rebound, dunk, grab the ball has more advantages.

2.2 Improve the physical resistance of basketball players

Basketball is a high-intensity antagonistic sport, and the players need to have frequent physical contact and physical confrontation on the court. Strength quality training can exercise and enhance the muscle strength of athletes, so that athletes have more advantages in physical confrontation and reduce the risk of injury. Strength quality training can not only exercise and enhance the muscle strength of athletes, so that athletes have more advantages in physical confrontation, reduce their own injury risk. It can also enhance the physical stability and coordination of basketball players, make them more stable in basketball games, and reduce the risk of falling during physical confrontation.

2.3 Reduce the occurrence of sports injuries

The strong confrontational nature of basketball directly leads to frequent muscle strains and various collision accidents among basketball players. However, conducting strength quality training can enable basketball players to protect themselves to the maximum extent during the game and reduce the occurrence of accidents [2]. Strength quality training is beneficial to improve the body control ability of basketball players, effectively avoid the impact of opponents, but also reduce the sports injury caused by irregular movements, reduce the sports injury caused by joint instability.

2.4 Enhance athletes' physical and mental endurance

Strength quality training is beneficial for enhancing athletes' physical endurance, which is the foundation for basketball players to maintain speed, strength, and agility in long-term high-intensity competitions, directly affecting their athletic performance during the game. Psychological endurance is a key psychological quality for athletes to maintain calmness, focus, and hard work in basketball games. Through strength quality training, basketball players' psychological endurance can be enhanced, enabling them to maintain a high level of competitiveness in the game.

3. Shortcomings in Strength and Quality Training for College Basketball Players

3.1 Insufficient emphasis on strength and quality training

On the one hand, due to the lack of professional coaching resources and the influence of traditional training concepts, some coaches tend to focus on technical and tactical training for college basketball players, and limit strength quality training to traditional physical training, such as running and weightlifting for a long time, while ignoring special training in core areas [3]. On the other hand, college basketball players themselves do not pay enough attention to strength quality training, and pay little attention to the improvement of basketball skills when they train independently.

3.2 Single training method

In the strength quality training of basketball players, many colleges and universities still use the traditional barbell training, running, squat and other training methods. Although the traditional training method can improve the strength of basketball players, it lacks innovation. The strength quality training of basketball players is long-term and continuous. Under the long-term fixed training method, college basketball players are easy to lack of training interest. Moreover, this traditional strength quality training method often focuses more on the improvement of maximum strength, ignoring the training of athletes' core strength, which is not conducive to the improvement of basketball players' skill level.

3.3 Individual differences among students are ignored

Each athlete's physical condition, technical level and training needs are different, so in strength quality training, coaches should fully consider individual differences and give athletes personalized training guidance. However, in practice, some colleges and universities ignore the individual differences of students in training and adopt a "one-size-fits-all" training method. In some basketball training, the training mode and training process are too fixed, limited to the demonstration of movements by teachers and the emphasis on training precautions, and athletes' independent training or concentrated training, which cannot effectively improve athletes' training interest [4].

3.4 Lack of systematic training in strength and quality

The strength training of basketball players is a systematic and continuous process, and universities need to develop detailed and systematic training plans based on the actual situation and training goals of basketball players. But in practice, the strength quality training of some college basketball players is not systematic and discontinuous, so it is difficult to achieve good results. For example, the strength quality training in some colleges and universities lacks phased training objectives, and the training content is fragmented and fragmented. Due to the interference of other factors such as study and examination in some colleges and universities, the training process is intermittent, which affects the overall training effect of basketball players.

4. Training Methods for Strength and Quality of College Basketball Players

4.1 Clarify the connotation of strength quality and increase the importance of strength quality training

In order to provide high quality strength quality training for college basketball players, we must first change coaches and athletes Mobilize the awareness of strength quality training, and improve the importance of strength quality training for coaches and athletes. Coaches and athletes should make clear the connotation of strength quality and have a comprehensive understanding of strength quality. Strength quality not only refers to how much weight an athlete can lift, but also includes speed strength, endurance strength, explosive power, etc. Coaches and athletes need to train for different strength qualities^[5]. To this end, universities can organize basketball coaches to participate in relevant training courses to enhance their understanding of strength and quality. The training content covers strength and quality, advanced educational concepts, diverse training methods and so on. At the same time, in order to provide professional strength and quality training for college basketball players, universities should increase their efforts to introduce professional talents. Through the driving and exemplary role of professional talents, they can provide a demonstration for existing coaches and improve the overall quality of the basketball coaching team. The coach should incorporate the strength quality training into the daily training system and train the basketball players in a systematic and standardized way. In the meantime, colleges and universities should strengthen the daily publicity of strength quality training, mobilize basketball players to independently conduct strength quality training by setting up strength quality training publicity lectures, and popularize the importance of strength quality training and independent training methods to basketball players through social media and issuing strength quality training guides, so as to guide basketball players to independently conduct strength quality training. Help basketball players master the correct training methods.

4.2 Develop a scientific training plan to ensure the systematic and long-term effectiveness of strength and quality training

Developing a scientific training plan is the fundamental guarantee for ensuring the systematic and long-term development of strength and quality training for college basketball players. College basketball coaches should develop strength and quality training plans based on the actual situation of athletes and the training objectives of universities. First of all, coaches should clarify the training goals of college basketball players, training goals can be divided into long-term and short-term phased training goals, training goals should be specific, quantifiable, strength quality in speed, endurance, explosive power and other content needs to have specific goals. For example, for the training of speed and strength quality, the long-term (one academic year) training goal is to set the athlete can start from a stationary state to a full speed state, and the athlete can change the direction of movement in rapid movement; The short-term (first quarter) training goal is that after systematic training, the athlete's jumping height is significantly increased, the body can still maintain stability in rapid movement, and the technical movement is not deformed. The training content should be arranged systematically around the training objectives. Strength quality training should cover upper limbs, lower limbs and core muscles. Different training methods should be adopted according to different upper limbs, lower limbs and core muscles. For example, barbell bench press, prone dumbbell row and other training methods can be used for upper body training; plank support and Russian turn with ball holding can be used for core strength quality training; lunges squat, weight-bearing heel raise and other methods can be used for lower body strength quality training to improve the explosive power and stability of upper and lower limbs and strengthen the endurance and stability of core muscle group^[6]. Moreover, coaches

should optimize the training process of college basketball players according to the arrangement of college studies and examinations, arrange training time reasonably, minimize the influence of factors such as studies and examinations on athlete training, and ensure the stability and continuity of strength quality training. Colleges and universities can adjust the course arrangement for basketball players, and coaches can use their spare time to strengthen the strength and quality training for athletes.

According to the training situation of college basketball players, coaches should establish a supervision mechanism, regularly supervise, assess and feedback the strength and quality training of athletes, and constantly adjust the training plan of athletes according to the feedback results to ensure the maximum training effect. The assessment should include all aspects of strength quality, such as explosive quality, speed quality, core strength quality, etc. The assessment should adopt scientific testing methods, such as strength test, speed test, endurance test and skill level test, etc., to ensure the objectivity and accuracy of the evaluation results [7]. At the same time, coaches should also pay attention to the performance of basketball players in peacetime strength training, and adhere to the principle of combining process evaluation and summative evaluation, so as not to eliminate the enthusiasm of college basketball players. For the outstanding basketball players in the training process, the coach should continue to praise in time to improve the enthusiasm of basketball college basketball players to participate in strength training. In addition, after the end of each strength quality training course, colleges and universities should pay attention to the nutritional supplement and muscle recovery of basketball players to reduce muscle damage. For example, colleges and universities can provide basketball players with stretching, massage, physical therapy, and other services by either building a special recovery area or hiring professionals to offer stretching and additional services aimed at promoting athletes' muscle recovery. Additionally, they should provide athletes with a balanced diet to ensure that they consume sufficient nutrition and improve their physical training endurance.

College basketball players' weekly and daily strength quality training content and recovery measures should have a clear training plan to avoid the scattered and fragmented training content. Strength quality training should be phased and progressive, and coaches should follow the principle of gradual progress, gradually increasing the difficulty and intensity of training, allowing athletes to gradually adapt and improve, and continuously enhancing their strength quality [8].

4.3 Adopting diversified strength quality training methods to increase the fun and pertinence of training

Coaches should apply various training methods based on the physical condition and developmental laws of college basketball players, so that their strength and basketball skills can be improved synchronously [9]. In strength quality training, in addition to traditional sports equipment such as barbells and dumbbells, it is possible to introduce elastic bands, suspension systems, Swiss balls, and other strength training tools, thereby providing college basketball players with a diverse range of training methods.

4.3.1 Functional training

According to relevant studies, functional training can improve the core strength of basketball players, enhance the core stability of the trunk, especially in improving the athletes' upper body strength and lower limb explosive power has a very significant effect [10]. Functional training is a comprehensive training method, involving the training of all parts and systems of the body, which is conducive to improving the overall athletic ability of athletes. By using functional training methods, coaches can simulate common behaviors in daily life. For example, training items such as standing on one foot and balancing board are designed to increase the stability of basketball players' bodies. Design quick change of direction, jump and other exercises to improve the physical agility and reaction speed of basketball players; Design elastic belts, dumbbells and other training programs to enhance athletes' muscle strength and explosive power. Coaches should combine the characteristics of basketball, design functional training movements to help athletes strengthen the weak physical parts and improve physical coordination.

4.3.2 Core Strength Training

Coaches should pay attention to the core strength training of college basketball players, strengthen the core muscle training combined with basketball special movements, and strengthen the core stability of basketball players. Coaches should pay attention to isometric muscle contraction training for basketball players to improve their muscle endurance. In view of the strength quality training, coaches can use the way of "match training" to exercise the strength quality of college basketball players in

practice, and improve the interest of college basketball players to participate in the strength quality training. Coaches should design a variety of core strength programs, such as the design of basic core strength training programs, including the design of sit-ups, planks, Russian twist training programs; Design dynamic core strength training programs, such as the design of supine leg 8-figure around the ball, medicine ball rotation and throwing, one leg sitting against the wall dribble and so on, to improve the core strength quality of basketball players.

4.3.3 Intermittent training

Long-term high-intensity training is easy to burden the athlete's body, affect the athlete's health, and thus affect the athlete's basketball skill performance. Therefore, the coach should pay attention to the use of interval training method. Interval training is a kind of training method to improve the physical quality of athletes through rapid stimulation and recovery, based on repeated high-intensity exercise and timely rest, so that athletes can reach the limit in a short time, while being able to recover quickly [11]. When applying the interval training method, the coach should arrange the interval time reasonably according to the physical condition of the athlete, so as to ensure that the athlete can recover his physical strength without losing the continuity of training. For example, in the training of explosive power quality of college basketball players, coaches apply interval training method to simulate the intensity of athletes in actual basketball games and arrange interval time. The coach designs the squat interval training method. The athletes perform a set of squat training, squat until the thighs are parallel to the ground, stand up, and repeat many times. After completing a set of squat training, rest for 30 seconds, and then carry out the next set of training, gradually increasing the difficulty of squatting, such as gradually increasing the weight of the athlete, increasing the leg strength and hip strength of the athlete, and improving the explosive power of the leg. According to the performance of the athletes in actual training, the coach should gradually adjust the training intensity and interval time.

4.3.4 Personalized training

Coaches should strengthen the personalized guidance to college basketball players. Coaches need to conduct a comprehensive physical assessment of athletes, including strength, speed, endurance and other aspects, understand the physical status of athletes, and develop personalized training plans for athletes. For example, for athletes with insufficient core strength, the exercise of the core muscle group should be strengthened. The coach can make a written report of the training plan and send it to the athlete, so that the athlete can train purposefully without the guidance of the coach. In the training process, the coach should dynamically adjust the training plan according to the feedback of the athlete and the training effect to ensure the best training effect. Coaches should provide personalized guidance to basketball players in time, and each training method can be made into micro-lessons for athletes to watch and practice independently, and constantly strengthen the training effect of college basketball players.

5. Conclusions

Basketball is a competitive sport with high requirements for human strength quality. Strength quality is the basis for basketball players to fight, break through and defend on the court. Strengthening the strength quality training of basketball players is conducive to improving the level of basketball skills, improving the physical confrontation ability of basketball players, reducing the occurrence of sports injuries, and enhancing the physical and psychological endurance of athletes. College basketball players are reserve talents of basketball competitive sport. They should improve their strength quality, pay attention to individual differences and ensure that players' strength quality is improved, so as to cultivate excellent basketball talents with exquisite skills, excellent physical ability and strong will for the development of basketball of our country.

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