

Analysis on Comprehensive Physical Training of College Student Football Players

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ABSTRACT. *On the basis of explaining the difference between physical training and physical training, this paper puts forward the basic requirements and contents of physical training for college football players. The basic contents of football players' physical fitness training include strength quality training, speed quality training, sports endurance training and psychological function training.*

KEYWORDS: *Colleges and universities; Football players; Physical training*

1. Introduction

At present, the trend of world football development is that the technology is more and more comprehensive, the tactics are more and more flexible and changeable, the division of labor of players on the field is less and less obvious, and the requirement of athletes' physical training level is very high. Only athletes with very good physical ability can adapt to the needs of competition. Traditional physical training mainly focuses on the pursuit of a certain sport quality (speed, strength, endurance, flexibility), ignoring the improvement of the overall functional potential and the cultivation of tenacious will to fight and psychological quality. Football players' competitive ability, or competition ability, is an organic combination of their physical, technical, intellectual and psychological abilities. Among them, physical fitness is the basis of athletic ability and an important component of athletic ability. Therefore, we can not simply regard the physical training of football players as physical quality training or physical training. Physical fitness is closely related to sports quality, both of which are related and different. This paper mainly discusses the physical training of college football players.

2. Basic Requirements of Football Physical Training in Colleges and Universities

2.1 Comprehensive Physical Training

The purpose of comprehensive physical training is to promote the all-round development of the body and to improve the physical qualities, lay a good foundation for maximizing the special physical qualities, improve the level of physical health, and effectively prolong the athlete's long-term sports life in football [1].

2.2 Systematic Training

Physical training must be carried out on the basis of comprehensive training to achieve good results. In the past training, because of the lack of physical training, athletes can not maintain good physical quality, which has a greater impact on their mastery of sports techniques and tactics. In this way, in several years of sports training, the physical quality of athletes has always remained at a relatively low level, which undoubtedly affects the overall level of football team. Athletes' physical fitness training must be carried out in every semester. Physical fitness training should be combined with specific, planned and systematic training, so as to ensure that athletes' physical fitness is constantly consolidated and improved to meet the requirements of sports competitions [2].

2.3 Must Carry on the Massive Exercise Training

Sports practice has proved that large amount of training can rapidly improve the level of training and sports performance. According to the characteristics of football match, such as long time, large amount of activity, fierce competition and difficult technical action, we should carry out large amount of exercise training in order to mobilize the potential of the body to the greatest extent, and constantly improve the physical quality and adaptability. Large amount of exercise training mainly includes the factors of exercise volume and intensity, which can be divided into training time, exercise density, intensity and time. Without these factors, it is impossible to guarantee large amount of exercise. In training, it is necessary for athletes to make clear that large amount of exercise training is closely related to the improvement of football level, mobilize their consciousness of participating in sports training, and through intensive exercise training, both physical quality, tactical level and ideological style of athletes can be improved [3].

2.4 Combining General Training with Special Training

In physical fitness training, special physical training is based on general physical training and combines the characteristics and requirements of special sports to

develop the necessary physical qualities. According to the characteristics of football, athletes should have quick reaction ability, good speed, high flexibility and good endurance. These special qualities must be acquired through systematic and long-term special physical training. Physical training should be combined with technical and tactical training. Physical training is to promote the all-round development of the body and ensure and promote the improvement of technical and tactical level. Therefore, in training, we should pay attention to the close combination of physical training and tactical training, so that the good physical quality gained in training can be brought into full play in the competition [4].

3. Contents of Physical Fitness Training for College Football Players

3.1 Strength Quality Training

(1) Fast Strength Training

Fast strength depends on the contraction strength and speed of muscle. It refers to the ability of muscle to exert its strength as quickly as possible and overcome external loads quickly. The greater the strength and the faster the athletes use to complete their movements, the greater the speed and power they display. In training practice, only by improving both muscle strength and muscle speed, can the best effect of fast strength training be achieved. Scientific research practice has proved that fast strength training should deal with the proportional relationship between load weight and movement speed so as to make it consistent with the requirements of special sports. Whether it is to increase the strength from the angle of never reducing the speed of movement, or to increase the speed of movement from the angle of never reducing the load, or to develop the fast strength by increasing the load and speed at the same time, we must solve the problem of optimizing the combination of the exercise load and the speed of movement. In the fast strength training, if the load is too large, it will affect the speed of completing the movement; on the contrary, if the load is too small, it will be difficult to show the fast strength. Generally, the strength of 40% - 80% of the maximum load is used, which can take into account both the development of strength and speed. Athletes should be required to experience maximum exertion and speed as much as possible in practice. The number and number of weight-bearing exercises are usually repeated 5 to 10 times in each group, and 3 to 6 groups are completed. The determination of the number of training groups should be limited to the speed at which the athletes complete the movements without decreasing. If the speed of movement is obviously decreased, the practice should be stopped. The interval time should be sufficient but not too long, usually 2-3 minutes. The interval time is too long, which leads to the decrease of excitability of the central nervous system and affects the next group of exercises. The non-weight-bearing exercise mainly adopts various forms and requirements of jumping exercises to overcome their own weight, such as step jumping, jumping, vertical jumping, frog jumping and deep jumping exercises. These exercises can be done either with two feet or with one foot. Before practicing, we should make full preparations to prevent muscle strain and ankle sprain.

(2) Strength and Endurance Training

Athletes' strength and endurance level depends on many factors, among which the most important is to ensure the ability of blood circulation and respiratory system to consume oxygen and supply oxygen to working muscles, the ability of anaerobic metabolism and the ability of working muscles to work together effectively, and the quality of athletes' will to overcome their own fatigue. In addition, strength endurance is closely related to maximum strength. The number of times different athletes complete the same load depends mainly on maximum strength. The greatest strength is the number of repetitions and the strength and endurance are good. Sports practice has proved that cyclic training is the main way to improve strength and endurance. Different sports require different strength and endurance. At present, there are mainly two different ways of cyclic training: high intensity intermittent ball-following training and low intensity intermittent cyclic training. Circulation exercises should ensure a certain density and intensity of practice: there is no interval in practice, or there is no time limit for practice, but the time requirement for one or three groups of circular exercises must be determined; the way to improve the training intensity is to reduce the time for completing each group of circular exercises, increase the load or reduce the repetition times and the load unchanged. Increase the number of repetitions; you can use the method of calculating heart rate to control the interval rest time. When the heart rate drops to 120 beats per minute, the next cycle can be started. The improvement of strength and endurance in football events must be combined with the improvement of cardiovascular system and respiratory and circulatory system. While improving athletes' aerobic and anaerobic metabolic abilities, attention should be paid to the cultivation of athletes' willpower and psychological qualities to resist fatigue reaction in muscle strength endurance training [5].

3.2 Speed Quality Training

In football games, all kinds of stealing balls and quick running and receiving require athletes to have good speed ability. From the training point of view, speed includes reaction speed, movement speed and displacement speed. The displacement speed is composed of starting speed, accelerating speed and absolute speed. Football runs differently from track and field runs, depending not only on the companion but also on the opponent; there are forward runs and backward runs; there are forward runs and side runs, etc., which all put forward different requirements for the speed training of football players. Starting speed, accelerating running speed and speed endurance are the key points of speed training for football players. Speed training in football sports mainly includes short-distance start running, sprint running, variable speed running and speed endurance. Start running is characterized by the human body accelerating at a high speed in a short period of time from a stationary state. Start running is mainly manifested in the fast running of football matches and getting rid of defense. Start-up ability is mainly exercised through various kinds of start-up. In football matches, fast defense and tactical coordination require athletes to have good sprint and speed running abilities. Sprint ability is mainly exercised by

running fast in short distance. Speed endurance refers to the speed endurance of high-speed acceleration running and the single action speed endurance of high-speed and large-scale, such as turning and stealing, not the general endurance of 1500M and 3200 M, but also not the absolute speed endurance of sprinters. The relationship between general endurance training and specific speed should be well handled in training. Speed endurance exercises mainly include 800 m to 1500 m middle distance running, 3000 m to 5000 m long distance running and cross-country running at different distances, dribbling for 1 to 2 minutes, one-to-one interception or multi-person interception, half-court interception, rope skipping, etc. Short and medium distance fast running and repetition running require 70%-90% intensity, heavy load and high load intensity. Pay attention to heart rate monitoring after exercise. The main purpose is to develop running skills and abilities, improve the coordination of running, and achieve the goal of improving running speed through complete practice [6].

3.3 Exercise Endurance Training

Sports endurance in physical training mainly refers to the ability to engage in special activities with high intensity for a long time. Strength mainly refers to the speed of movement. Strength and time, speed and distance are two aspects of the unity contradiction. The intensity of exercise is high, and the time of exercise is naturally short; the speed of movement is fast, and the distance of movement is bound to be short. However, football requires not only high intensity, but also long time, that is, fast running and long distance running. The sports endurance level of football players'physical fitness training mainly depends on: (1) the functional ability of functional system, i.e. oxygen debt and lactic acid tolerance, maximum strength and fast strength; (2) the ability to effectively utilize the functional potential in competition; (3) the psychological quality and will quality under fatigue [7].

3.4 Psychological Function Training

The training of psychological function and will quality plays an important role in the whole training process of athletes. In the fierce competition of ball games in modern times, it is often necessary to fight hard under backward circumstances and adversity. At this time, athletes'psychological function and will quality often become the key factors to win. Psychological function in physical training mainly refers to the ability to maintain a stable state of mind in the face of unbearable fatigue, so that the nervous system can fully tap and mobilize its functional potential and complete the competition and training tasks. Psychological function depends on the desire, will and self-regulation ability of the athletes to complete the competition task. Among them, desire is the motive force, self-regulation is the method, will is the condition, and all three are indispensable [8].

Physical fitness training is an important part of college football players'training, which must be carried out throughout the annual training cycle. Coaches must have a deep understanding of the basic contents that affect the physical fitness training of

football players, which is the premise and basis for innovation and continuous improvement of physical fitness training.

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