

# Analysis of Physical Fitness Training in Juvenile Football Training Based on Structural Perspective

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**Abstract:** It is Not Difficult to See from the World Youth Football Match That the Situation of Winning the Match by Relying Solely on Personal Skills and Overall Tactical Advantages is Different from That of the Past. Teams with Superior Personal Skills and Overall Tactics Are Not Necessarily Able to Win the Final Victory of the Match. Based on the Structural Perspective, This Paper Analyzes the Physical Fitness Training in the Youth Soccer Training. on This Basis, It Further Studies the Evaluation Index System and Evaluation Criteria of the Physical Fitness Level of the Youth Soccer Players. the Results Show That to Change the Current Situation of Chinese Football, We Must Start with Young Athletes, Pay Attention to Physical Training and Psychological Quality Training in Their Youth, Lay a Good Foundation and Form Good Habits to Cope with Various World Competitions in Order to Improve the Level of Chinese Football.

## 1. Introduction

In recent years, higher requirements have also been put forward for the physical training intensity and amount of exercise of young football players. Good physical quality is the basis for young players to give full play to in competitions, and plays an important role in improving sports ability, prolonging sports life and preventing and reducing sports injuries [1]. Physical fitness refers to the ability of the human body to work continuously for a long time, with high intensity and heavy load in a difficult environment. Physical fitness is the foundation of competitive ability and the foundation for athletes to bear heavy load, high intensity training and competition [2]. Especially at the stage of teenagers whose technical movements have not been completely finalized, the physical fitness training of these athletes should combine their physiological and psychological characteristics to give full play to the advantages of modern training concepts and methods, so as to reasonably arrange the exercise load and strengthen the exercise recovery [3]. Therefore, under the premise of the continuous development of modern football, from the perspective of training high-level young athletes, we must have a deeper understanding of the importance of physical fitness training, and from the overall level to explore and grasp the characteristics and direction of young modern football physical fitness training, which will be of great significance.

## 2. Characteristics of Physical Fitness in Modern Football Match

### 2.1 The Overall Physical Characteristics of the Competition

Modern competitive football is a mixed non-periodic sports event with high intensity, strong intermittence, changeable rhythm, complicated technology and tactics, and strong antagonism. In order to win the competition and complete the tactical tasks formulated by the coach, athletes need good physical fitness [4]. One of the characteristics of football is its integrity. In a football match, each team will have 11 players. The 11 players on the pitch should be united in thinking, action, attack and defense. They should have a strong sense of participating in the match. Only by forming an overall attack and defense can they gain the initiative in the match. Good physical fitness is the

basic physical fitness to improve the technical level of a specific project. The technical level will improve very quickly.

The team has its own principles and structure in the process of executing offensive tactics, and generally follows the principles of creating width and depth, infiltration and contingency [5]. There are principles and methods of action in each stage, and the evaluation of offensive tactics in football matches from the structural perspective can be realized through the behavioral evaluation of the three stages (Figure 1).

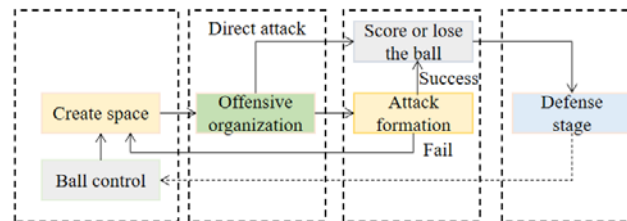


Fig.1 Cycle Structure Diagram of Attacking Process in Football Match

In physical fitness training, attention is paid to the training of small muscle groups related to football specific techniques, so fine as to involve every muscle with strong movements. During the competition, the athletes' activity space is getting smaller and smaller, and under normal circumstances, they are often compressed to 40× 30 meters to play the competition. Those teams that can expand the active area in time when controlling the ball and attack and shrink the area quickly when throwing the ball and defending are the high-level teams today [6]. This shows that “the decisive limiting factor of the current football players' physical fitness is not the players' heart and lung function, but the players' muscle endurance level, especially the muscle anaerobic endurance level”, so we should accurately grasp this link in youth football training.

## 2.2 Individualized Physical Characteristics of Competition

According to the statistics and analysis of the players' physical fitness on the field set up by FIFA and UEFA, it is found that in a World Cup match, players run from 9,000 to 14,000 meters, with an average of 10,800 meters [7]. A good young football player must be a player with comprehensive skills and tactics, outstanding characteristics and outstanding psychological and physical qualities. In high-level competitions, not only the mastery and application of techniques and tactics are required, but also the level of one's own psychology and physical ability are required. Football is a highly competitive and confrontational event. In the competition, both sides will fight for control in order to score the ball into the opponent's goal and try to keep their goal intact. The fight will be fought in close combat, especially in the area near the penalty area of both sides. In a high-level competition, the two sides fell down as many as 200 times due to competition and collision, which shows the fierce confrontation [8]. Therefore, modern players should have the ability of running speed and distance of first-class players, and this ability is basically the same in the first half and the second half, sometimes the second half is even stronger than the first half. Young soccer players should have a highly developed and comprehensive strength training level. All parts of the body, especially the upper and lower limbs, waist and abdomen, as well as ankles, knees, fingers and wrists, should undergo specialized and comprehensive strength strengthening training in order to develop muscle strength in all sports links and achieve the goal of improving overall strength.

## 2.3 Technical Physical Characteristics of Competition

The technical physical characteristics of football matches play an extremely important role in matches. It is the premise and guarantee to complete tactical coordination and determine tactical effect. The perfect combination of physical fitness and technology is an important symbol of modern football players. Psychology and physical ability are the important guarantee of playing skills and tactics. Therefore, psychological training should be combined with physical fitness training for teenagers. Only by strengthening physical fitness training and psychological training can teenagers' understanding and knowledge of football be improved. Athletes have to run for 90

minutes in a field of nearly 8,000 square meters, with running distances ranging from 6,000 meters to more than 10,000 meters. They also have to complete hundreds of technical movements with and without balls. If 90 minutes are tied, an extra 30 minutes will be needed. If there is still no victory or defeat, the victory or defeat will need to be decided by penalty kicks, thus the athletes' physical energy consumption is very high. Among them, the athlete's movement speed and maintaining this fast-paced movement frequency for a long time have become one of the main goals pursued by modern soccer players. The important condition to support this main goal is high level of physical fitness. Exercise endurance in physical fitness training refers to the ability to engage in special activities for a long time with great intensity. The sports endurance level of young soccer players' physical fitness training mainly depends on: the functional ability of functional system; The ability to make effective use of functional potential in competitions; Psychological and volitional qualities under fatigue.

### **3. Theoretical Analysis of Physical Fitness Training for Young Football Players**

#### **3.1 The Importance of Physical Training**

Physical fitness training is the basis for the successful completion of various sports training. Without good physical fitness, technical and tactical training will become a mere formality. Without efficient physical training, it is difficult to guarantee the improvement of competitive ability in sports. For the training of teenagers, besides the necessary long-distance running, there should also be some long-distance variable-speed running as well as the special features of football matches, such as 4 to 4 or 5 to 5 in 20 minutes. Especially in recent years, the physical fitness training of youth football has shown the characteristics of starting from actual combat and combining targeted matches and exercises. Football players consume 80% of the total energy of the human body in important and intense matches, and their physical fitness needs to consume about 50% in general matches and training. In the competition, aerobic exercise is about 70%- 80%, therefore, football players need to have a long period of aerobic endurance as the foundation and require athletes' bodies to have good aerobic energy supply capacity. The purpose of psychological function and will quality training is to maintain a stable psychological state in the face of unbearable fatigue, so that the nervous system can give full play to its function, tap and mobilize its functional potential, and complete the competition and training tasks. From this, we can see that a good physical reserve is the basis for improving the technical level of football.

#### **3.2 Physical Training Should Be Combined with Psychological Training**

Psychological training plays an important role in sports. It is one of the basic factors that determine sports participants to achieve good results. Fully understanding psychological training, consciously exerting influence on athletes' psychological process and personality characteristics, enabling athletes to adjust their psychological state, is conducive to the improvement of competitive level. According to the sports load borne by football players in the match, it can be said that the team's high level of endurance quality is the basis for success. It is not only a guarantee for the development of other physical qualities, but also an indispensable and important part in all-round training. Due to insufficient or not in place preparation activities, physiological functions of some muscles have not yet reached the state required to adapt to sports, insufficient training level, poor elasticity and strength of muscles, fatigue or excessive load causes muscle functions to decline, strength to weaken and coordination to decrease. Using a variety of methods and means to improve the degree of technical standardization. Eye attendance refers to observing the technical movements, physiological and psychological reactions of young athletes and looking at them from several angles in order to find problems and solve them. In the contemporary fierce confrontation football matches, it is often difficult to fight against backwardness and adversity. At this time, athletes' psychological function and will quality often become the key factors to win.

#### **4. Research on Countermeasures of Physical Fitness Training for Young Football Players**

At present, the level of youth football in our country is relatively backward. If the level of youth football is to be improved, physical training must be put in an important position. If teenagers want to maintain their advantages or improve their football, they must also attach importance to the physical training of athletes so as to achieve better results. Formulate a systematic endurance training plan, while striving to achieve the purpose of endurance training, improve the professional ethics of young people, so that athletes can consciously participate in aerobic endurance training. Physical fitness is determined by the physical structure of the body, the functional level of system organs, the storage of energy and materials and the level of basic metabolism. Physical fitness is the main external manifestation of physical fitness, which is manifested in various athletic abilities such as strength, speed, endurance, flexibility and sensitivity. This requires athletes to carry out anaerobic metabolism and aerobic metabolism quickly and efficiently, and energy supply plays a vital role.

##### **4.1 Physical Fitness Training Should Conform to Science and Reasonable Arrangement**

The physical training of young football players should further update their concepts, absorb advanced international physical training methods and methods for my own use, and make creative use of them. In normal training, physical fitness should also be based on high standards and centered around techniques and tactics, and should follow the characteristics of teenagers and training principles. Athlete's non-lactic acid anaerobic capacity is based on good aerobic endurance level. Aerobic endurance and non-lactic acid anaerobic capacity complement each other. The better the unity of the two in athletes, the more they can give full play to their own comprehensive athletic quality potential and ability. Specific and personalized physical training should be carried out according to the characteristics of each athlete. At the same time, practical results should be emphasized in combination with competition actual combat and competition practice, and psychological training and recovery training should be emphasized. Only by organically combining physical fitness training with special techniques and tactics can we truly achieve the purpose of physical fitness training, speed up the training process, perfect and test techniques and tactics in physical fitness training, and develop and consolidate physical fitness in technical and tactical training. It is necessary to consider that the development of the athletes is not perfect, and they cannot arrange too much exercise like the adult athletes, but they should also give certain intensity stimulation to promote the cardiovascular system and respiratory system of the players to develop faster and improve the cardiopulmonary function, so that the heart and lung can adapt to the function of high-intensity training.

##### **4.2 According to the Laws of Physical Fitness Training, Combined with Technical and Tactical Training**

Great changes have taken place in the development of modern football, so our ideas will change accordingly. According to the data of the world's outstanding football players and the analysis of the characteristics of football. Therefore, young people's modern football physical fitness training should first be emphasized from the perspective of physiology and biochemistry. In the physical training of young athletes, attention should be paid not only to the endurance training of aerobic energy supply, but also to the speed and speed endurance training of anaerobic energy supply and anaerobic-aerobic mixed energy supply. However, the traditional guiding ideology of football training is only speed endurance training (lactic acid tolerance). Practice has proved that this kind of training has a greater negative impact on athletes, while the physical fitness of teenagers is worse than that of adult football players due to their growth and development. For this reason, completing 5s~30s exercises with maximum ability and interval time of 0.5min~5min is helpful to improve the anaerobic and non-lactic acid ability. To improve the competitive level of football, we must start from the youth and improve the comprehensive ability of the players through systematic technical, tactical and physical training, which many of our young athletes cannot achieve. Especially in the

competition, we should have good physical fitness reserves, while our young athletes often suffer from cramps due to physical fitness decline in the later stage of the competition. For high-level athletes, physical fitness training should be used to improve technical and tactical level. For young athletes and novice athletes, techniques and tactics should be taken as the main means to develop the level of physical training.

#### **4.3 Coaches Should Master Scientific Methods to Monitor and Evaluate Training Intensity**

Coaches should clearly grasp the physical fitness load of young athletes, effectively control the best ratio between the intensity and quantity of training load, and ensure that the training intensity reaches the physiological conditions and conditions required by the competition. Physical fitness training can not only improve and enhance the human body's athletic function, gradually meet the requirements of special performance goals, but also exercise and cultivate the human will quality. Through repeated and repeated physical training to the physical limit of the impact, overcome psychological barriers, hone athletes' indomitable fighting will quality, to create conditions for excellent sports results. Heavy exercise and overload training are also indispensable lessons for young soccer players. In order to continuously improve the training level, coaches should scientifically master the training methods. In order to improve the physical fitness level of athletes, it is necessary to systematically carry out all-year and multi-year physical fitness training as planned. Functional ability and athletic quality are gradually developed and improved through long-term repeated exercises. In football training, the tasks in different periods and different periods are different. For example, during the transition period of the training cycle, the main task is to sum up experiences and lessons, and to adjust the team to adjust the physical and psychological fatigue and tension of the players by means of small-load training, special diversified training, short-term vacation and diagnosis and treatment of injuries so as to actively participate in the new training stage.

#### **5. Conclusion**

Football is a kind of physical and technical event with the goal of scoring goals, fast and changeable attack and defense speed and strength, and strong antagonism. The physical fitness level of young soccer players mainly consists of special speed, overall strength, athletic endurance and psychological function. According to the physiological characteristics of young athletes, reasonable physical training methods should be formulated so that young athletes can continuously enhance their physical quality and improve their competitive ability during the growth process. In the aspect of psychological quality training, it is necessary to master the psychological quality of teenagers, analyze the causes in time, enlighten them purposefully, strengthen the research on scientific methods of physical fitness training, adopt effective methods to improve the scientific level of physical fitness training, and monitor the physical fitness training of teenagers with advanced scientific instruments and equipment. The evaluation system of physical fitness training in juvenile football training based on structural perspective has good reliability, validity and objectivity, can meet the needs of research and practice, and can be directly applied in future theoretical research and training practice.

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