Abstract: This article aims to explore how to effectively improve the physical fitness training of college football. Physical fitness is an important component of football, which is crucial for players’ technical development and game performance. However, there are generally some problems in the current physical fitness training of college football, such as a lack of scientificity and a single training method. So, this article first analyzes the importance of physical fitness training in football, and proposes the necessity of improving college student football physical fitness training. Subsequently, through literature review, this article summarizes the commonly used methods and technical means of physical fitness training at present. On this basis, strategies and suggestions for effectively improving the physical fitness training of college football have been proposed, including developing a scientific and reasonable training plan, selecting training content reasonably, strengthening the combination of technology and physical fitness, and emphasizing psychological counseling. In the end, this article validates the actual effectiveness of these strategies and suggestions through case studies. This article aims to provide scientific guidance and reference for the physical fitness training of college football, helping players improve their technical level and achieve better match results.

Keywords: College Football; Physical Fitness Training; Training Plan; Combining Technology with Physical Fitness; Psychological Counseling.

1. Introduction

Football is a sport that requires a lot of physical energy and high technical requirements, and physical fitness is the foundation for football players to achieve excellent performance in matches. Especially for college football players, physical fitness training is the key to technical development and game performance. However, there are currently some problems in college football physical fitness training, such as unscientific training methods and a lack of personalized training, which urgently need to be addressed.

2. The Importance of Physical Fitness Training in College Football

The importance of physical fitness training in college football cannot be underestimated. As the foundation of football, physical fitness directly determines the performance and results of players in matches. During college years, players are in a critical period of physical development and technical growth. Through scientific and reasonable physical training, they can maximize their physical potential, improve their physical fitness and athletic ability, and lay a solid foundation for the improvement of technology and tactics. Firstly, physical fitness training helps improve the physical fitness of players. Football is a high-intensity sport that involves a lot of running, sprinting, jumping, and other movements. A good level of physical fitness can make it easier for players to complete these movements during matches, reduce fatigue and physical burden, and thus better utilize their technical advantages. For example, through aerobic training, players’ cardiopulmonary function and endurance can be improved, allowing them to continue running and chasing during matches; Through Strength training, players’ muscle strength and explosive force can be enhanced, making them more advantageous in sprinting, contesting and other movements. Secondly, physical fitness training can help reduce the risk of injury (Hu Aili, 2020). Football is a contact sport where players are prone to impacts and strains during matches. Through scientific physical training, players can improve their physical stability and resilience, and reduce the probability of injury. For example, through flexibility training, players' muscles and joints can achieve better extension and range of motion, thereby reducing injuries caused by strain.

In addition, a good level of physical fitness can also help increase players' opportunities for competition and career development prospects. In highly competitive football matches, only players with excellent physical fitness can stand out on the field and receive more opportunities to play. For college players with professional football dreams, good physical fitness is the key to entering a professional club. Professional clubs are more willing to sign players with outstanding physical fitness because they have greater development potential and the ability to adapt to professional football (Wang Yuan, 2022).

3. The Necessity of Improving College Students' Football Physical Fitness Training

The necessity of improving the physical fitness training of college football lies in solving the current problems, enhancing the physical fitness level and overall competitiveness of players. Firstly, there is often a problem of single training content in current college football physical fitness training. Traditional physical training mainly focuses on long-distance running, neglecting the diversity and high intensity characteristics of football. Therefore, players may face various sports requirements during matches, but due to insufficient training, they may not be able to adapt to these requirements, resulting in poor performance and even injuries.
In order to solve this problem, improving the physical fitness training of college football requires diversified training content, including explosive power, flexibility, speed, agility, and other aspects, in order to comprehensively improve the physical fitness level of players.

Secondly, the rationality of the training plan is also a necessary consideration for improving the physical fitness training of college football. At present, some college football teams have unreasonable training plans, and the training frequency and intensity are not scientific enough to fully meet the training needs of players. A good training plan should be targeted, determining the training content and intensity based on the individual characteristics of players and the needs of different training stages, in order to maximize the potential of players. In addition, the training plan should also have appropriate rest and recovery arrangements to avoid excessive training leading to player fatigue and injury.

Improving college football physical fitness training can also stimulate players' enthusiasm for training. When players feel the scientific and effective nature of training, they will be more proactive in participating in training, investing more energy and enthusiasm (Jin Zexu, 2020). In addition, diversified training content is also beneficial for increasing players' interest in training, making training no longer dull and tedious. Interesting training formats and challenging training goals can stimulate players' potential and fighting spirit, making them more engaged in training and improving training effectiveness (Zhao Jun, 2023).

Finally, improving the physical fitness training of college football is crucial for enhancing the overall competitiveness of the team. In today's fiercely competitive environment of football, a team with high-level physical fitness has a clear advantage in the game. Players with excellent physical fitness can not only maintain a high level of performance in matches, but also better execute tactics and cope with opponent pressure. By improving the physical fitness training of college football, the overall competitiveness of the team can be improved, thereby achieving better results in matches.

4. Common Methods and Technical Means of Football Physical Fitness Training for College Students

In college football physical fitness training, common methods and technical means are diverse, aiming to improve players' physical fitness level and various abilities required for football matches. The following are some common methods and techniques for college football physical fitness training:

Aerobic exercise refers to low to medium intensity long-term continuous exercise, such as long-distance running, swimming, cycling, etc. Aerobic exercise training can improve cardiovascular endurance and oxygen delivery capacity, enhancing players' endurance and endurance. This is crucial for continuous running, jumping, sprinting, and other aspects in the competition. For example, long-term jogging training can increase cardiovascular function and improve players' endurance and endurance during matches.

Anaerobic exercise refers to explosive sports with high intensity in a short time, such as sprinting, jumping, weight lifting, etc. Anaerobic exercise training can improve muscle strength and explosiveness, and enhance the explosiveness and speed of players. This is very important for breaking through defense and shooting from a long distance. For example, sprinting and jumping training can improve players' explosive power and speed, making them more threatening in matches.

Core strength refers to the ability of the body to maintain stability and balance, including muscles in areas such as the abdomen, back, and buttocks. Core strength training can improve the players' body control ability and balance, reduce the risk of injury, and also help to improve the players' explosive power and strength. For example, core strength training such as Sit-up and plank supports can enhance the players' abdominal and back muscles and improve the stability of the body.

Flexibility refers to the range of motion of muscles and joints. For football players, good flexibility can improve flexibility and agility, reducing the likelihood of injury. For example, stretching training can increase a player's muscle flexibility, making them more flexible and agile in the game.

In college football physical training, combining technical training with physical training can better improve players' performance in matches. For example, running with the ball and practicing shooting can simultaneously improve players' technical and physical abilities, enabling them to better utilize their advantages in the game.

5. Strategies and Suggestions for Effectively Improving College Students' Football Physical Fitness Training

Developing a scientific and reasonable training plan is a key step in college football physical fitness training. Sports coaches should develop personalized training plans based on the actual situation of each college football player. Firstly, through comprehensive physical fitness testing and technical evaluation, understand the player's physical condition, training needs, and potential. These tests can include aerobic endurance tests, anaerobic endurance tests, strength tests, flexibility tests, etc. Through these test results, coaches can understand the physical condition of players, identify their weaknesses and potential problems (Ren Fei, 2023). For example, if a college football player performs well in aerobic endurance but needs improvement in anaerobic endurance and strength, the coach can develop targeted training plans based on these test results. The training plan can include High-intensity interval training for anaerobic endurance, such as sprint, step, etc.; At the same time, through repeated training and Strength training, such as lifting dumbbells, squatting, etc., to strengthen the strength of players. Through such a training program, players can comprehensively improve their physical fitness level and make up for their deficiencies in anaerobic endurance and strength.

In addition, when formulating a training plan, it is also necessary to consider the training objectives of the players. Different players may have different training goals, for example, some players may focus more on improving speed and explosive power, while others may focus more on enhancing endurance and endurance. Sports coaches should develop corresponding training plans based on these different goals to help players achieve their personal training goals.

Secondly, reasonable selection of training content is also an important part of college football physical fitness training. Football is a comprehensive sport where players need to constantly run, change direction, jump, etc. during matches. Therefore, the training content should be diversified, focusing
on practicing the commonly used movements and technical movements of players in the game. For example, common training movements in football matches, such as fast start, quick stop and turn, high leg lift, etc., can be introduced to help players become more flexible and agile in the game. In terms of selecting training content, sports coaches can also combine training with actual competition situations. For example, if a team discovers that there are frequent mistakes in a certain technical action during a game, the coach can incorporate this technical action into the training content, and through repeated practice and simulation of the game situation, help players correct their mistakes and improve their technical level (Zhang Long, 2023).

Strengthening the combination of technology and physical fitness is also an important strategy for effectively improving the physical training of college football. Physical training and technical training are complementary and mutually reinforcing. In training, sports coaches can organically combine physical and technical training, designing a series of physical training projects that can not only improve players’ physical fitness level, but also practice related football skills at the same time. For example, by combining technical training with aerobic endurance training, players can engage in technical exercises in a state of fatigue to improve their tactical adaptability in the game. Give an actual case to illustrate how to strengthen the combination of technology and physical fitness in training. Assuming that the technical goal of the team is to improve players’ passing and receiving skills, while the physical goal of the team is to enhance players’ endurance. In the training, the coach can organize a comprehensive training, through setting up different passing exercises and receiving exercises, so that players can carry out physical training in the process of continuous running, passing and receiving. In this way, players can not only improve their passing and receiving skills, but also enhance their physical endurance. Through this comprehensive training, players can have more sustained combat effectiveness and better utilize their technical skills in matches.

Finally, paying attention to psychological counseling is also an important strategy for effectively improving college students’ football physical fitness training. Psychological counseling is crucial in the physical training of college football. Sports coaches should understand the psychological state of players during training and competition, help them overcome the tension and pressure of the game, and maintain a good competitive state. For example, suppose a player experiences nervousness before a game, resulting in poor performance during the game. Sports coaches can communicate with this player to understand their psychological condition and competition pressure, and then provide positive psychological advice and support. By providing psychological counseling to this player, the coach can help him establish a positive mindset, enhance self-confidence, and thus perform at his best level in the game. In addition to providing psychological counseling before matches, coaches should also focus on cultivating players’ psychological qualities in daily training, so that they have the ability to better cope with competition pressure.

In summary, effective improvement of college football physical fitness training requires a scientific and reasonable training plan, reasonable selection of training content, strengthening the combination of technology and physical fitness, and paying attention to psychological counseling. Sports coaches should develop personalized training plans based on the characteristics and needs of each player, diversify training content, and cultivate their comprehensive abilities through the combination of technology and physical fitness. At the same time, they should pay attention to psychological counseling to help them maintain a good competitive state. These strategies and suggestions will help promote the further development of college football and sports.

6. Case Study

To verify the actual effectiveness of the above strategies and suggestions, we conducted a case study using a university football team as an example. In the example, the football team achieved significant results by introducing a scientific and reasonable physical fitness training plan and diverse training content.

Firstly, the sports professional coach of the football team conducted a comprehensive physical fitness test and technical evaluation of the players, understanding their physical condition, training needs, and potential. For example, player A performs well in aerobic endurance, but needs to improve in anaerobic endurance and strength, while player B excels in strength, but needs to strengthen aerobic endurance. Based on the test results, the coach developed a personalized training plan to provide targeted physical training for each player. Secondly, the coach emphasizes comprehensiveness and diversity in the selection of training content to meet the actual competition needs. In training, they added many common movements and technical movements in football matches, such as fast starting, sudden stopping and turning, and high leg lifting. Through these training contents, players have gained more comprehensive training and developed more practical skills. In addition, the coach fully combines technical training and physical fitness training to complement and promote each other. For example, adding aerobic endurance training to pass practice allows players to continue passing practice in a state of fatigue. Through such comprehensive training, players not only improve their physical fitness, but also enhance their ability to endure battles in matches, improving the accuracy and stability of passing.

After implementing these strategies and suggestions, the university football team has achieved significant results. The physical fitness level of the players has significantly improved, with significant improvements in endurance and explosive power. In the competition, they are able to continuously run and change direction, demonstrating higher endurance and agility. In addition, the technical level of the players has also been improved, and their technical movements such as passing, shooting, and dribbling have become smoother and more accurate. Under the guidance of the training plan, player A in the example enhanced his explosive power and strength through continuous anaerobic training and Strength training. In actual matches, he is able to better compete with opponents for the ball, while also being more threatening when attacking. In the example, player B is trained in aerobic endurance to demonstrate better sustained combat effectiveness in the game. In a fierce game, he can persist in running all over the court, creating more opportunities for the team. In addition, the overall competitiveness of the team in the example has also been significantly improved in the game. The comprehensive improvement of physical fitness and the enhancement of
skills give the team an advantage in the game. They demonstrated better physical strength and technical reserves in the game, forming a unified overall offensive and defensive strategy, and achieved more victories.

In summary, through a scientific and reasonable training plan and diverse training content, strengthening the combination of technology and physical fitness, and emphasizing psychological counseling, the college football team has achieved significant results. This case study verifies the practical effectiveness of strategies and suggestions for effectively improving college football physical fitness training, providing valuable experience and reference for other college football teams. At the same time, it has further promoted the development of football and sports for college students.

7. Conclusion

The importance of football physical fitness training for college students is self-evident. The strategies and suggestions proposed in this article, including developing a scientific and reasonable training plan, selecting training content reasonably, strengthening the combination of technology and physical fitness, and emphasizing psychological counseling, can provide more comprehensive training and guidance for college football players, thereby effectively improving their physical and technical abilities. Through the analysis of practical cases, these strategies and suggestions have achieved significant results in reality, making players perform better in games and contributing an important force to the team's better performance in the game. However, the optimization and improvement of physical training are not achieved overnight and require long-term and sustained efforts. In future research and practice, we should further explore more refined training plans, personalized training tailored to the characteristics and needs of different individuals, in order to achieve optimal results. At the same time, it is necessary to strengthen the research on the combination of technology and physical fitness, and promote the development of football training towards a more comprehensive and scientific direction. In addition, the role of psychological counseling in physical training also deserves further in-depth research, providing more comprehensive support and assistance for players.

References