

# PSYCHOLOGICAL TRAINING OF SOCCER PLAYERS AT COMPETITION LEVEL



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CAPACITAÇÃO PSICOLÓGICA DE JOGADORES DE FUTEBOL A NÍVEL DE COMPETIÇÃO

CAPACITACIÓN PSICOLÓGICA DE JUGADORES DE FÚTBOL A NIVEL DE COMPETICIÓN

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## ABSTRACT

**Introduction:** Competitive sports compete for technology, tactics and physical fitness. There is also competition for the psychological quality of athletes. There is an intrinsic connection between athletes' mental state in competition and their psychological characteristics. **Objective:** Explore the influence of soccer players' psychological characteristics on the level of competition. **Methods:** This paper investigates 220 soccer players using a questionnaire. In this database, variance analysis, multiple comparisons, factor analysis and other statistical analysis methods were used to ascertain the psychological status of Chinese soccer players. Finally, the factors affecting the psychological characteristics of soccer players were analyzed. **Results:** There were differences in the psychological characteristics of soccer players at different positions and levels. **Conclusion:** There are specific variations in psychological status among different types of players. The factors that influence the anxiety level of soccer players are a multidimensional system. It contains both subjective and objective content. **Level of evidence II; Therapeutic studies - investigation of treatment outcomes.**

**Keywords:** Soccer; Athletes; Mental Health; Anxiety.

## RESUMO

**Introdução:** Os esportes de competição disputam pela tecnologia, tática e aptidão física. Há também uma concorrência pela qualidade psicológica dos atletas. Existe uma conexão intrínseca entre o estado mental dos atletas na competição e suas características psicológicas. **Objetivo:** Explorar a influência das características psicológicas dos jogadores de futebol no nível da competição. **Métodos:** Este trabalho investiga 220 jogadores de futebol utilizando um questionário. Nesta base de dados, utilizou-se a análise de variações, comparações múltiplas, análise de fatores e outros métodos de análise estatística para verificar o estado psicológico dos jogadores de futebol chineses. Finalmente, foram analisados os fatores que afetam as características psicológicas dos jogadores de futebol. **Resultados:** Houve diferenças nas características psicológicas dos jogadores de futebol em diferentes posições e níveis. **Conclusão:** Existem variações específicas no estado psicológico entre diferentes tipos de jogadores. Os fatores que influenciam o nível de ansiedade dos jogadores de futebol são um sistema multidimensional. Ele contém tanto um conteúdo subjetivo quanto objetivo. **Nível de evidência II; Estudos terapêuticos - investigação dos resultados do tratamento.**

**Descritores:** Futebol; Atletas; Saúde Mental; Ansiedade.

## RESUMEN

**Introducción:** En los deportes de competición se compite por la técnica, la táctica y la forma física. También hay una competencia por la calidad psicológica de los atletas. Existe una conexión intrínseca entre el estado mental de los deportistas en competición y sus características psicológicas. **Objetivo:** Explorar la influencia de las características psicológicas de los futbolistas en el nivel de competición. **Métodos:** Este trabajo investiga a 220 jugadores de fútbol mediante un cuestionario. En esta base de datos se utilizaron el análisis de la varianza, las comparaciones múltiples, el análisis factorial y otros métodos de análisis estadístico para determinar el estado psicológico de los futbolistas chinos. Por último, se analizaron los factores que afectan a las características psicológicas de los futbolistas. **Resultados:** Se observaron diferencias en las características psicológicas de los futbolistas de diferentes posiciones y niveles. **Conclusión:** Existen variaciones específicas en el estado psicológico entre los diferentes tipos de jugadores. Los factores que influyen en el nivel de ansiedad de los futbolistas constituyen un sistema multidimensional. Este posee un contenido tanto subjetivo como objetivo. **Nivel de evidencia II; Estudios terapéuticos - investigación de los resultados del tratamiento.**

**Descriptorios:** Fútbol; Atletas; Salud Mental; Ansiedad.



## INTRODUCTION

Modern sports practice proves that football is not only a competition of technology, tactics, and physical quality but also a competition of athletes' psychological quality—more and more changes to the human body's physiology and psychology. Studies have shown that a good football player must have excellent physical fitness and competitive level and have an excellent mental state.<sup>1</sup> In football, players with better mental quality can usually beat players who are physically strong but mentally weak. This paper conducts a questionnaire survey on Chinese football players. This study aims to understand their exercise anxiety characteristics and its influencing factors. In this way, players can better adapt to the requirements of modern football development. This can achieve the purpose of regulating their tension and cultivating their good psychological quality.

## METHOD

### Research objects

In this paper, 220 football players were surveyed by questionnaire method. There was no noticeable difference in players' different ages, heights, and physical qualities.

### Investigation method

This paper uses the "State-Trait Anxiety Scale" to study domestic professional players' state anxiety and trait anxiety. In this paper, the "Questionnaire of Factors Affecting the Anxiety of College Football Players" was compiled to study their sports anxiety-related factors.<sup>2</sup> The validity test results showed that the two questionnaires showed good consistency in convergence, differentiation, and structure.

### Statistics

This paper uses variance analysis, multiple comparisons, T-test, factor analysis, and other methods to carry out a statistical analysis of the original data.

### Optimization modeling and optimization of football

The driving force for translational motion is

$$A_1(k) = \frac{y'(k) + y(k)}{2[y'(k) - y(k)]} \quad (1)$$

Assume that the resistance the football receives as it moves forward is proportional to the current speed  $y'(k) = a_1 \cdot \eta(k)$ .  $a_1$  is the translational damping ratio. The ball's acceleration is the ratio of the weight  $m$  to the resultant force.

$$p(k) = \frac{A_1(k) - y(k)}{m} = \frac{A_1(k) - \lambda_1 \cdot \eta(k)}{m-1} \quad (2)$$

$$\beta_1 = 1 - \frac{\alpha_1}{m-1} \quad \eta(k) = \frac{A_1(k-1)}{m-1} + \frac{\lambda \cdot \eta(k-1)}{k+1} \quad (3)$$

The movement patterns of football are:

$$\begin{bmatrix} \mu(k+1) \\ \eta(k+1) \end{bmatrix} = \begin{bmatrix} 1 & 1 \\ 0 & \beta_1 \end{bmatrix} \begin{bmatrix} \mu(k) \\ \eta(k) \end{bmatrix} \quad (4)$$

The power distance when the football is spinning is

$$A_2(k) = \frac{y'(k) - y(k)}{2} \quad (5)$$

There is no need for a code of ethics for this type of study.

## RESULTS

### Differences in anxiety levels of players in different parts

The multiple comparisons in Table 1 indicate no difference in state anxiety among the different groups.<sup>3</sup> In football, goalkeepers, defenders, and forwards have significantly higher tension levels in the two critical attack and defense positions than forwards.

The state anxiety, trait anxiety, and other aspects of Chinese football players have shown significant positionality.<sup>4</sup> This may be the difference in stress intensity caused by the players' positional roles on the field.

### Differences in anxiety levels of football players of different ages

Table 2 shows that the anxiety level of Chinese football players decreased with the extension of training time. Players of different ages have significant differences in state anxiety.<sup>5</sup> There are significant differences in trait anxiety among different types of athletes. The multiple comparisons in Table 3 are state anxiety and character anxiety.

### Differences in Anxiety Levels of Football Players in Different Events

Table 4 finds that the anxiety of players participating in international and provincial competitions is at the middle level. Athletes have higher state anxiety when participating in national and intercontinental competitions. Analysis of variance showed significant differences in

**Table 1.** Multiple comparisons of anxiety levels of players in different parts.

Group	State anxiety	Trait anxiety
Goalkeeper-Defender	0.27	0.51
Goalkeeper - Midfielder	0.29	0.02
Goalkeeper - Striker	0.09	0.66
Defender - forward	0.88	0.08
Defender-forward	0.52	0.22
Avant-garde	0.33	0.01

**Table 2.** Average anxiety levels of football players at different ages.

Group	State anxiety	Trait anxiety
Five years or less	59.41±3.31	55.99±5.71
5-7 years	54.66±4.03	46.63±5.07
8+ years	54.34±5.07	46.17±4.58

**Table 3.** Multiple comparative analyses of anxiety levels of football players at different ages.

Group	State anxiety	Trait anxiety
Less than five years vs. 5-7 years	0.877	0.683
Less than 5 years vs 8-10 years	0.008	0.003
5-7 years vs 8-10 years	0.007	0.002

**Table 4.** Average Anxiety Levels of Players with Different Tournament Experiences.

Group	State anxiety	Trait anxiety
International	51.8±2.86	44.78±2.84
Intercontinental	55.77±6.72	46.08±6.77
National	56.46±3.97	47.92±3.8
Provincial and municipal	49.2±5.14	39.66±6.06

state anxiety among players with different competition experiences.<sup>6</sup> There are significant differences in trait anxiety among different types of athletes. Table 5 shows a significant difference in anxiety among college athletes who have participated in intercontinental and national competitions compared with athletes who have participated in provincial and municipal competitions.

## DISCUSSION

In football, goalkeepers, defenders, and forwards have significantly higher tension levels in attacking and defending two key positions than forwards. The primary duty of this goalkeeper and defender in football is to defend.<sup>7</sup> They are under more pressure in the game. This makes them more nervous than *avant-garde*. In a game, both offense and goals are borne by the forwards. Their performance has a significant impact on the outcome of the game. There's also a lot of pressure on the shooters. The nervousness that my players showed during the game. This is most likely due to their different positions, roles, and pressures. Defenders are on high alert throughout the game, and they can mark the attacking players at any time. The goalkeeper is the last line of defense for the entire team. He has to effectively control free throws and play the role of a free agent. It needs to protect its lower back effectively. He is also responsible for organizing and directing the defense. This is the core of the team's defense during the game. Its mental state in the game will directly affect its sports performance. The shooter is the core of the team and the primary shooter.<sup>8</sup> It has to score goals in tight spaces and complete the final attack. A shooter must have enough mental energy to be at his best.

### Lack of systematic and targeted psychological training

The cultivation of psychological quality has become an important content of physical education. In the increasingly fierce sports competition, the role of psychological training has become increasingly prominent.<sup>9</sup> The usual technical, tactical and physical training is not systematic and step-by-step. Coaches often only focus on the psychological preparation before the game, ignoring long-term psychological training. Athletes do not have sufficient mental preparation before the competition. At the same time, they also did not make enough psychological adjustments in the game.

### Influence of abnormal interpersonal relationships

Interpersonal interaction refers to the direct or indirect relationship between individuals and the behavior of others in interpersonal communication. These guiding activities are induced by psychological and external manifestations such as suggestion, imitation, interference, and conformity.<sup>10</sup> Physical contact occurs very frequently in football. The battle between field and field is fierce. In this context, the team judges and the audience communicated very frequently. If there is no effective adjustment and control of the influence of abnormal interpersonal

**Table 5.** Multiple comparative analysis of anxiety levels of players with different competition experience.

Group	State anxiety	Trait anxiety
International vs Continental	0.172	0.552
International vs National	0.080	0.197
International vs Provincial	0.608	0.106
Intercontinental vs National	0.822	0.620
Intercontinental vs Provincial	0.053	0.023
National vs Provincial	0.042	0.004

relationships, the lousy psychology of athletes will continue to breed and spread.

## Psychological characteristics of personality

The mental state and external performance on the court are related to the athlete's character and psychological characteristics. Most players in football are cautious. Cues from others easily influence them. They will not have enough motivation if they are not well prepared.<sup>11</sup> Most extroverts are risk-taking, arrogant, and have low self-control. Athletes tend to be impatient, impulsive, and out of control during competition.

## Technique and Physical Fitness

The use of athletes' tactics has a great relationship with the player's mentality. This article summarizes the practical experience of many excellent players and draws the following conclusions: If players have general skills, they cannot control the game's initiative. As a result, athletes cannot control the overall rhythm and process of the game.<sup>12</sup> The opponent's technology will put him under psychological pressure. If lost in battle, they lose confidence and become panicky. At the same time, athletes' physical fitness and endurance are relatively weak in the face of fierce confrontation. At this time, athletes are prone to depression and psychological imbalance problems.

## Proposal

### Incentives

There are two main aspects to using incentive methods: First, athletes need to be self-motivated. Athletes cheer themselves on after completing the attack. Secondly, when confronting adversity, the coaches should promptly praise those players who work hard and tenaciously.<sup>13</sup> Coaches should use command skills correctly and flexibly. This provides an effective tactic for the athlete and thus boosts the athlete's morale.

### Attention, concentration, and transfer

In most cases, the lousy mentality of football players is because the players' attention is attracted by factors such as score, opponents, referees, spectators, and so on. In this case, the coach should divert the players' attention by transferring information and making substitutions outside the game.<sup>14</sup> Athletes have adopted a positive attitude to shift their attention from the original lousy stimulation to the purpose of completing the game. This will gradually eliminate the negative pressure.

## Relaxation

Cognitive anxiety levels in athletes often exceed expected levels. This causes the athlete's reaction to the competition to be overstressed, and a nervous reaction occurs. In this case, players should make full use of various game gaps. Athletes use different depth and rhythm adjustment methods to relieve tension. This way, we can realize the conscious adjustment of the game time, goal, and mood. This will allow you to regain control over yourself.

## CONCLUSION

The anxiety levels of domestic players are all moderate. Chinese football players have different levels of anxiety in different categories. The factors affecting the anxiety level of Chinese football players are a multidimensional system, which includes both subjective and objective aspects.

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All authors declare no potential conflict of interest related to this article

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