

# INFLUENCE OF ATHLETES' ANXIETY ON COMPETITION RESULTS



ORIGINAL ARTICLE  
ARTIGO ORIGINAL  
ARTÍCULO ORIGINAL

INFLUÊNCIA DA ANSIEDADE DOS ATLETAS PARA OS RESULTADOS DAS COMPETIÇÕES

INFLUENCIA DE LA ANSIEDAD DE LOS DEPORTISTAS EN LOS RESULTADOS DE LAS COMPETICIONES

Long Zhang<sup>1</sup>   
(Physical Education Professional)

1. Sports Training College, Xi'an  
Institute of physical education,  
Xi'an, Shaanxi, China.

## Correspondence:

Long Zhang  
Xi'an, Shaanxi, China. 710068.  
zhanglong9907@163.com

## ABSTRACT

**Introduction:** Athletes naturally feel anxiety and tension during competition, where mild worry and stress can further encourage athlete performance, but severe anxiety seriously interferes with athlete performance on the field. **Objective:** Study the effects of anxiety on competition results. **Methods:** This paper analyzes 40 athletes from various sports, use the relevant scoring methods on the competition situation anxiety scale, makes statistics on athletes' psychological scores and athletes' anxiety with different competition outcomes, and draws relevant charts aiming to better observe the psychological situation of athletes with different competition levels. **Results:** Athletes have different types of anxiety in the competition process, and athletes with different competition outcomes also have different anxiety emphases. Among them, athletes with high sports levels often feel nervous and anxious about the results of competitions and the fiercest competition. The degree of anxiety about their actions is relatively low; athletes with lower performance are just the opposite. **Conclusion:** Coaches should perform targeted psychological counseling to adjust the mentality of athletes to achieve a better competitive state. **Level of evidence II; Therapeutic studies - investigation of treatment outcomes.**

**Keywords:** Athletes; Anxiety; Sports.

## RESUMO

**Introdução:** Os atletas naturalmente sentem ansiedade e tensão no decorrer da competição, onde uma leve preocupação e estresse podem encorajar ainda mais o desempenho dos atletas, mas uma ansiedade grave interfere seriamente no desempenho do atleta no campo. **Objetivo:** Estudar os efeitos da ansiedade nos resultados das competições. **Métodos:** Este trabalho analisa 40 atletas de vários esportes, utiliza os métodos de pontuação relevantes na escala de ansiedade de situação de competição, faz estatísticas sobre a pontuação psicológica de atletas e a ansiedade de atletas com diferentes resultados de competições, e desenha quadros relevantes, visando melhor observar a situação psicológica de atletas com diferentes níveis de competição. **Resultados:** Atletas têm diferentes tipos de ansiedade no processo de competição, e atletas com diferentes resultados de competição têm também diferentes ênfases na ansiedade. Entre eles, atletas com alto nível esportivo muitas vezes se sentem nervosos e ansiosos diante dos resultados das competições e da competição mais acirrada, e o grau de ansiedade sobre suas próprias ações é relativamente baixo; os atletas com desempenho inferior são exatamente o oposto. **Conclusão:** Os treinadores devem realizar aconselhamento psicológico direcionado, de modo a ajustar a mentalidade dos atletas para alcançar um melhor estado competitivo. **Nível de evidência II; Estudos terapêuticos - investigação dos resultados do tratamento.**

**Descritores:** Atletas; Ansiedade; Esportes.

## RESUMEN

**Introducción:** Los atletas sienten naturalmente ansiedad y tensión en el transcurso de la competición, donde una ligera preocupación y el estrés pueden favorecer aún más el rendimiento de los atletas, pero una ansiedad grave interfiere seriamente en el rendimiento del atleta en el campo. **Objetivo:** Estudiar los efectos de la ansiedad en los resultados de la competición. **Métodos:** Este trabajo analiza a 40 atletas de varios deportes, utiliza los métodos de puntuación pertinentes en la escala de ansiedad ante la situación de competición, realiza estadísticas sobre las puntuaciones psicológicas de los atletas y la ansiedad de los mismos con diferentes resultados de competición, y elabora gráficos pertinentes con el objetivo de observar mejor la situación psicológica de los atletas con diferentes niveles de competición. **Resultados:** Los deportistas tienen diferentes tipos de ansiedad en el proceso de competición, y los deportistas con diferentes resultados en la competición también tienen diferentes énfasis de ansiedad. Entre ellos, los atletas de alto nivel deportivo suelen sentirse nerviosos y ansiosos ante los resultados de la competición y la competencia más feroz, y el grado de ansiedad ante sus propias acciones es relativamente bajo; los atletas de menor rendimiento son todo lo contrario. **Conclusión:** Los entrenadores deben realizar un asesoramiento psicológico específico para ajustar la mentalidad de los deportistas y lograr un mejor estado competitivo. **Nivel de evidencia II; Estudios terapéuticos - investigación de los resultados del tratamiento.**

**Descriptor:** Atletas; Ansiedad; Deportes.



## INTRODUCTION

After entering the 21st century, the theory of sports training modernization has developed gradually and the system has been continuously improved. Both the design of training methods and the selection of events have reached a new height, which can effectively improve the physical function, morphological characteristics and sports quality of athletes in various events.<sup>1</sup> In the actual competitive competition process, the strength of psychological quality and physical stability have gradually become important factors affecting the competition results, while the impact of physical fitness and technical and tactical ability on the competition is further reduced.<sup>2</sup> At present, kinematics experts and coaches focus on Athletes' competitive anxiety and impulse, which is also the main target of sports psychological training.<sup>3</sup> Anxiety is a basic human emotion, which is ubiquitous in human daily work and life, plays an important role, and will affect individual behavior. Anxiety will change the individual's anxiety tendency to deal with threats, and also make the activities of the autonomic nervous system show an excited state.<sup>4</sup> The performance of anxiety is divided into different intensities and properties, which may be adjusted to maintain mental health.<sup>5</sup> If we can effectively deal with anxiety, we can slow down the negative psychological impact of athletes, on the contrary, it will affect the mental health of athletes, thus affecting the competition performance.<sup>6</sup> Athletes need to understand their anxiety state in the competition and adjust it in time, so as to play stably and achieve better results. Therefore, it is very necessary to study the anxiety state and coping of athletes.<sup>7</sup> This paper chooses sports performance as the distinguishing object to explore the competition anxiety of athletes with different results, so as to find out the causes of their anxiety and put forward corresponding strategies.

## METHOD

According to the principle of complete voluntariness, after fully informing the relevant research situation, this paper selects 40 athletes from various sports, and their overall scores are in the top 20 in the region. The study and all the participants were reviewed and approved by Ethics Committee of Xi'an Institute of physical education (NO.2018XIPZD). Among them, the first to the tenth are the top 50%, a total of 20, and the 11th to the 20th are the bottom 50%, also 20. The specific situation of the research object is shown in Table 1.

In this study, because the number of athletes is small, there are certain conditions for one-to-one communication, and different athletes have different sports types, and their psychology is also different in all aspects. Therefore, this paper selects the form of questionnaire, interview, face-to-face and online communication, and adopts the relevant scoring methods in the competition state anxiety scale, this paper makes statistics on the psychological scores of athletes and the anxiety of athletes with different competition results, analyzes the existing factors, and puts forward the corresponding adjustment methods.

Firstly, this paper inputs the relevant data into the computer, and then uses Excel software and SPSS software to sort out and analyze the obtained data, and draw relevant pictures, so as to better observe the psychological situation of athletes at different competition levels.

**Table 1.** Basic information of research object.

Option	Whole	Top 50%	Last 50%
Number of people	40 people	20 people	20 people
Age (years old)	14.5±0.86	14.6±1.21	14.9±1.88
Training period (year)	4.33±1.97	4.00±1.67	4.33±1.63
Height (cm)	183.2±5.17	179.5±6.48	177.3±6.69
Weight (kg)	69.5±13.10	65.2±7.20	63.5±7.77
BMI	20.6±2.77	20.2±1.61	20.3±1.55

## RESULTS

### Analysis of athletes' anxiety in competition

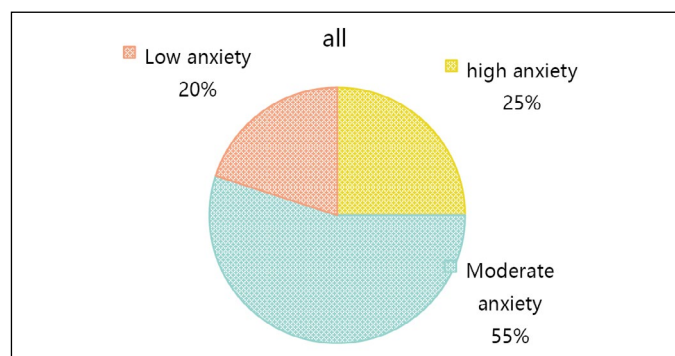
Through in-depth interviews and Research on athletes with different competition results, it can be seen that different athletes have different levels of competition anxiety, which also leads to different competition results. Therefore, this section makes statistics on the overall anxiety, physical anxiety and self-confidence of athletes in order to obtain more targeted research results.

It can be seen from the contents of Figure 1 that among all athletes, the number of athletes with high anxiety during the competition is 10, accounting for 25%; The number of athletes with moderate anxiety was 22, accounting for 55%; The number of athletes with low anxiety was 8, accounting for 20%.

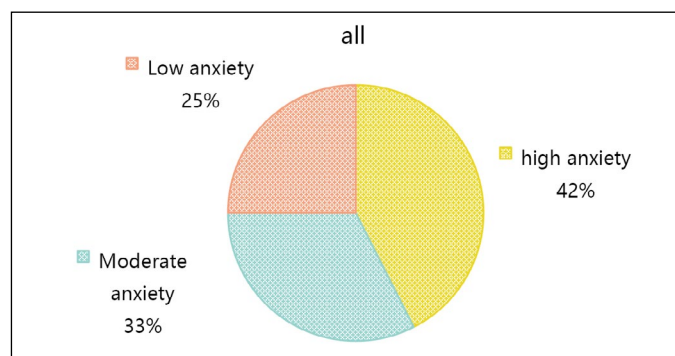
The analysis of the mentality of athletes with different results shows that among the top 50% of athletes with competition results, the number of athletes with high anxiety in the process of competition is 2, accounting for 10%; The number of athletes with moderate anxiety was 13, accounting for 65%; The number of athletes with low anxiety was 5, accounting for 25%. Among the 50% of the athletes after the competition results, the number of athletes with high anxiety during the competition is 8, accounting for 40%; The number of athletes with moderate anxiety was 9, accounting for 45%; The number of athletes with low anxiety was 3, accounting for 15%.

It can be seen from the contents of Figure 2 that among all athletes, 17 athletes showed high physical anxiety during the competition, accounting for 43%; The number of athletes with moderate physical anxiety was 14, accounting for 35%; The number of athletes with low physical anxiety was 10, accounting for 25%.

The analysis of the mentality of athletes with different results shows that among the top 50% of athletes with competition results, the number of athletes with high physical anxiety during the competition is 4, accounting for 20%; The number of athletes with moderate physical anxiety was 10, accounting for 50%; The number of athletes with low physical anxiety was 6, accounting for 30%. Among the athletes with



**Figure 1.** Statistics of anxiety of athletes with different competition results.



**Figure 1.** Statistics of anxiety of athletes with different competition results.

50% of the competition results, the number of athletes with high physical anxiety during the competition was 13, accounting for 65%; The number of athletes with moderate physical anxiety was 4, accounting for 20%; The number of athletes with low physical anxiety was 4, accounting for 20%.

It can be seen from the contents of Figure 3 that among all athletes, the number of athletes with high confidence in the competition process is 19, accounting for 48%; The number of athletes with moderate self-confidence is 10, accounting for 25%; The number of athletes with low self-confidence is 11, accounting for 28%.

The analysis of the mentality of athletes with different results shows that among the top 50% of athletes with competition results, the number of athletes with high self-confidence in the competition process is 15, accounting for 75%; The number of athletes with moderate self-confidence is 3, accounting for 15%; The number of athletes with low self-confidence is 2, accounting for 10%. Among the last 50% of the athletes in the competition, the number of athletes with high self-confidence in the competition process is 4, accounting for 20%; The number of athletes with moderate self-confidence is 7, accounting for 35%; The number of athletes with low self-confidence is 9, accounting for 45%.

### Analysis of athletes' competition psychological score

This paper systematically analyzes the competition psychological scores of athletes in different competitions, including seven options: tension, anger, concentration, self-esteem, fatigue, depression and panic.

As can be seen from Table 2, the score of all athletes is 3.0630 points, of which the average score of the first 50% is 4.4316 points and the average score of the last 50% is 2.4504 points, indicating that high-level athletes face higher performance pressure in the process of competition, so they are more nervous; In terms of the score of anger psychology, the score of all athletes is 1.1385, of which the average score of the first 50% athletes is 1.0776 and the average score of the last 50% athletes is 1.1537, indicating that they maintain a good attitude in contemporary sports competition, will not lead to anger and other bad emotions due to sports competition, and their opponents are more harmonious; In terms of the score of concentration psychology, the score of all athletes is 11.2943, of which the average score of the first 50% is 12.9769 and the average score of the last 50% is 10.0977, indicating that high-level athletes are more focused on the competition attitude in order to obtain better results; In terms of self-esteem, the score of all athletes is 9.0511, of which the average score of the first 50% is 8.7354 and the average score of the last 50% is 10.4723, indicating that athletes with lower sports level

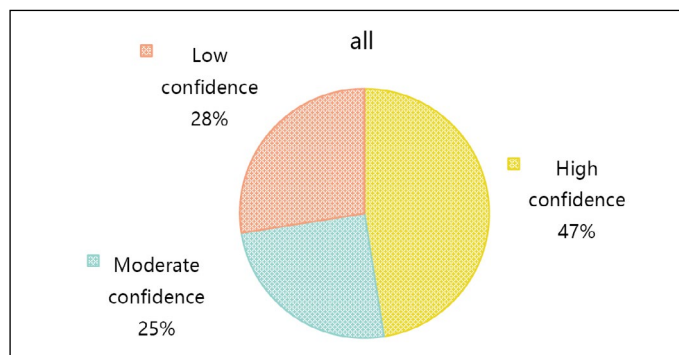


Figure 3. Different contest results athletes confident statistics.

Table 2. Competition psychological scores of athletes with different competition results.

Option	Nervous	Anger	Absorbed	Self-esteem	Fatigue	Depressed	Flustered
All	3.0630	1.1385	11.2943	9.0511	2.0931	2.3100	2.9622
Top 50%	4.4316	1.0776	12.9769	8.7354	2.7994	2.7011	1.3512
Last 50%	2.4504	1.1537	10.0977	10.4723	1.4203	2.2768	2.0660

have stronger self-esteem and pay more attention to the comments of the outside world; In terms of the score of fatigue psychology, the score of all athletes is 2.0931, of which the average score of the first 50% is 2.7994 and the average score of the last 50% is 1.4203, indicating that high-level athletes are more focused in the process of sports, so they are more prone to fatigue problems; In terms of the score of depression psychology, the score of all athletes is 2.3100, of which the average score of the first 50% is 2.7011 and the average score of the last 50% is 2.2768, indicating that high-level athletes are prone to depression and other psychological problems in the face of performance pressure; In terms of the score of panic psychology, the score of all athletes is 2.9622 points, of which the average score of the first 50% is 1.3512 points and the average score of the last 50% is 2.0660 points, indicating that high-level athletes are proficient in skills, so they have a stable mentality in the process of competition.

## DISCUSSION

We can change the different excited state of athletes before the competition by using different types of sports action practice, such as different speed, intensity, amplitude and sense of rhythm, or adjusting the bad psychological state. For example, by using sports with low intensity, large range and strong sense of rhythm, athletes can reduce their excitement before the competition, so as to eliminate tension; Or use sports with high intensity, high amplitude and strong sense of rhythm to improve the emotional excitement level of athletes. In addition, you can also relieve or vent tension through physical activities. For example, simple warm-up exercise combined with deep breathing can effectively alleviate mental tension and stabilize mental state. If the athletes are indifferent before the competition, they can enter the sports state in advance through high-intensity sports, such as high leg lifting, fast turn back running, etc., but it should be noted that the amount of exercise should not be too large, so as not to affect the athletes' physical fitness.

### Breathing Practice Regulation

Through a large number of studies, it is known that the use of music can affect the human brain, which has been widely accepted. For example, you can quickly go to sleep by listening to lullaby; Singing can reduce physical stress and so on. According to the research results, music can regulate emotions and make the human body produce a variety of states such as calm, excitement and balance. Music can bring information, so as to eliminate the negative emotions such as tension generated by the brain in the process of normal work to a certain extent, so as to promote attention and complete the work in an orderly manner. Therefore, people can relax by listening to their favorite music. Therefore, if athletes have excessive excitement or negative emotional performance before the game, they can adjust their emotions by listening to music. According to the research, athletes in antagonistic sports or performance sports can effectively adjust their emotions through music. Therefore, before the competition, athletes can alleviate their over passion or indifference through music regulation.

### Proper encouragement and adjustment

Coaches can exert positive psychological influence on athletes through appropriate praise and advisory language to help them get rid of their bad psychological state. For example, on the day of competition, the coach can praise or encourage the athletes to adjust their indifference, such as "as long as you keep playing regularly, you can win the opponent", "your technical support, you take the initiative to attack", "your strength is stronger than the opponent", which can adjust the athletes' mood to a certain extent.

## CONCLUSION

From the research of this paper, we can see that athletes have different anxiety in the process of competition, and athletes with different competition results have different emphasis on anxiety. Among them, athletes with high sports level often feel nervous and anxious in the face of competition results and fierce competition, and the degree of anxiety about their own actions is relatively low; The athletes with low sports performance have a weak sense of anxiety in the face of competition, but there is a high phenomenon in their own confidence and action anxiety. Therefore, for high-level athletes, we should focus on relaxing their tense competition results and adjusting their mentality during

the competition, while athletes with lower results should strengthen the improvement of their own sports skills and self-confidence, so as to make them believe in themselves in the competition process. In addition, coaches should also complete the psychological counseling of each athlete under the guidance of team psychological counselors according to the individual psychological characteristics and psychological needs of athletes, so as to make them have a better mentality and more stable play in the competition, so as to achieve better results.

---

The author declare no potential conflict of interest related to this article

---

---

**AUTHORS' CONTRIBUTIONS:** The author has completed the writing of the article or the critical review of its knowledge content. This paper can be used as the final draft of the manuscript. Every author has made an important contribution to this manuscript. Long Zhang: writing and execution.

---

## REFERENCES

1. Araújo CEL, Ferreira-Silva R, Gara EM, Goya TT, Guerra RS, Matheus L, et al. Effects of exercise training on autonomic modulation and mood symptoms in patients with obstructive sleep apnea. *Braz J Med Biol Res.* 2021;54(5):e10543.
2. Swartz L, Hunt X, Bantjes J, Hainline B, Reardon CL. Mental health symptoms and disorders in Paralympic athletes: a narrative review. *Br J Sports Med.* 2019;53(12):737-40.
3. Ferreira D, Silva A, Paulo J, Rosa P, Silva F, Wagner A, et al. Profiles of mood states, depression, sleep quality, sleepiness, and anxiety of the Paralympic athletics team: A longitudinal study. *Apunts Med Esport.* 2017;52(195):93-101.
4. Battalio SL, Huffman SE, Jensen MP. Longitudinal Associations Between Physical Activity, Anxiety, and Depression in Adults with Long-Term Physical Disabilities. *Health Psychol.* 2020;39(6):529-38.
5. Gonçalves MP, Belo RP. Competitive anxiety-traits: differences in gender, age, experience in competitions and sports in young athletes. *Psicol USF.* 2017;12(2):301-7
6. Parnabas V, Parnabas J, Parnabas AM. The influence of cognitive anxiety on sport performance among taekwondo athletes. *Inter J Indian Psychol.* 2015;2:56-63.
7. Rice SM, Purcell R, De Silva S, Mawren D, McGorry PD, Parker AG. The mental health of elite athletes: a narrative systematic review. *Sports Med.* 2016;46(9):1333-53.