



E-ISSN: 2707-7020  
P-ISSN: 2707-7012  
JSSN 2023; 4(1): 162-164  
Received: 10-01-2023  
Accepted: 16-02-2023

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## Comparative study on sports anxiety irrespective of gender differences among badminton and tennis players

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DOI: <https://doi.org/10.33545/27077012.2023.v4.i1c.165>

### Abstract

This study aimed to assess sport anxiety among athletes, taking into account gender differences and the specific sport practiced. The sample consisted of 100 participants who were selected based on their representation at the national level in tennis and badminton. The Sports Competition Anxiety Test (SCAT) questionnaire was administered to measure anxiety levels. Independent t-tests were conducted to compare anxiety levels between males and females in their respective sports, with a significance level set at 0.05. The statistical analysis revealed that females exhibited higher levels of anxiety compared to males. These findings confirm that women are more prone to anxiety than men. It was observed that girls' employment of thought control strategies and metacognitive beliefs contributes to their susceptibility to emotional and neurotic problems. Therefore, it is crucial for girls to acquire alternative strategies for coping with challenging situations. The study suggests that females may benefit from learning techniques to manage metacognitive worries. Additionally, modifying negative and positive metacognitive beliefs about worry can contribute to improved mental well-being. In conclusion, this study provides evidence that female athletes experience higher levels of anxiety compared to their male counterparts. It highlights the significance of addressing mental health concerns among female athletes and emphasizes the need to teach them effective strategies for managing anxiety. By promoting the development of adaptive metacognitive skills and modifying their beliefs about worry, girls can enhance their psychological resilience and overall mental health.

**Keywords:** Anxiety, badminton, tennis, mental health, sports

### Introduction

Sports Competition Anxiety is known to be an important psychological variable for Human Psychology of Emotion. It is believed to be one of the most crucial psychological aspects that often create negative effect upon the performance of elite level of sports-persons. (Sharma, A., & Purashwani, P. 2021) <sup>[2]</sup> Anxiety in humans is a complex phenomenon, which piques our interest in its comprehension. Indeed, we wish to comprehend what and why we experience pleasure, sadness, and dread, as well as what motivates our actions and reactions. Each individual moves at his or her own tempo, with some being swift and others slow. As we seek to comprehend human nature, experience, and behaviour, many queries arise in our minds. In a sense, researching anxiety aids us in providing logical responses to these concerns. Anxiety refers to the study of human conduct, and sports anxiety is the sub-discipline that focuses on the anxiety of athletes and other participants in competitive sports. As a subfield of psychology, sports anxiety focuses heavily on human apprehension on and around the playing field, in both practise and competition (Arya *et al.*, 2023) <sup>[1]</sup>. Athletes typically have to perform at their best in high-pressure scenarios that might affect their performance, and sport symbolises a competitive environment full of stressful conditions. The performance of athletes in sporting events may be affected by or linked to a variety of psychological issues. Anxiety is one hazard that competition in sports poses, and it significantly affects an athlete's or player's entire physiological, psychological, and behavioural performance (Sharma & Prasad, 2023) <sup>[9]</sup>. There are 52 million kids who play sports, according to estimates, and doing sports has a number of positive effects on the body and mind, including bettering cardiovascular health, elevating self-esteem, and enhancing bodily contentment. Despite the possibility that participating in sports would be pleasant and rejuvenating, the competitive activity itself causes anxiety and fear in its players. How well an athlete can manage their anxiousness will determine how well they perform in a

competition. Anxiety is a negative emotional state characterised by anxiety, tenseness, concern, apprehension, and physiological arousal. It can occasionally improve performance but usually has the opposite impact (Iwuagwu *et al.*, 2021) [7]. Therefore, the primary objective of this study was to examine badminton and tennis players apprehension in relation to their gender and sport using statistical analysis, to check their anxiety level.

## Methodology

### Selection of the subjects

In order to fulfill the objectives of the study, a total of 100 participants were carefully selected from the prestigious Lakshmbai National Institute of Physical Education (LNPE) in Gwalior, Madhya Pradesh. The participants consisted of 50 state-level tennis players, including 25 males and 25 females, as well as 50 state-level badminton players, again with 25 males and 25 females. The selection of these individuals was done with great attention to ensure a diverse and representative sample. The age range of the participants was set between 18 and 25 years, ensuring a relatively homogeneous group in terms of age. By including both male and female participants from both sports, we aimed to capture a broad perspective and account for potential gender-based differences in the study's findings. Additionally, focusing on state-level athletes ensured a certain level of expertise and proficiency in their respective sports, making them suitable candidates for the study.

### Procedure

The Sports Competition Anxiety Test (SCAT) was the instrument utilised for the study's goal of examining sports anxiety. The subjects had given their response to 15 statements of the questionnaire related to trait anxiety. The test monitored the Sports Competition Anxiety of the athletes for their respective sport. There was no time limit provided for the response and instructions were clearly

given before filling the questionnaire.

### Statistical Technique

First, normality assumption of data was checked by kolmogorov Smirnov (Das & Jhajharia, 2022b) [5] and Shapiro-Wilk test (Das *et al.*, 2023) [6]. The assumptions of normality were not violated, thus parametric test was implemented (Das & Jhajharia, 2022a) [4], to compare between games and gender independent 't' test was applied with the help of SPSS Version 26.

## Result

**Table 1:** General Characteristics of the subjects

Game	Gender	N	Age (Mean ± SD)
Tennis	Male	25	20±4.2
	Female	25	19±3.5
Badminton	Male	25	21±2.2
	Female	25	20±1.2

Table 1 represent the general characteristics of the subjects and this table revealed the mean and standard deviation of age.

**Table 2:** Mean Comparison of Anxiety of male and female (independent t-test)

Game	Gender	N	Mean	SD	Sig
Tennis	Male	25	21.53	4.54	0.04
	Female	25	24.73	3.11	
Badminton	Male	25	22.02	4.10	0.03
	Female	25	25.22	2.23	

Table 2 represent the mean difference of anxiety between male and female in their respective games and this table revealed that there was significant difference between male and female as the p-value is less than 0.05.

**Table 3:** Mean Comparison of Anxiety of tennis and badminton Players (Independent t-test)

Game	Gender	N	Mean	SD	Sig
Tennis	Male	25	21.53	4.54	0.07
Badminton	Male	25	22.02	4.10	
Tennis	Female	25	24.73	3.11	0.06
Badminton	Female	25	25.22	2.23	

Table 3 represent the mean difference of anxiety between their respective games, and this table revealed that there was no significant difference between tennis and badminton games as the p-value is greater than 0.05.

## Discussion

The results of the statistical analysis revealed a noteworthy finding, indicating that females exhibit a higher prevalence of anxiety issues compared to males, and there is no significant difference found between tennis and badminton players in their anxiety level. Consequently, it is imperative for coaches, physical educationists, and sports trainers to prioritize the mental well-being of female athletes (Bahrami & Yousefi, 2011; Schaller *et al.*, 2016) [3, 8]. Moreover, previous studies have consistently supported these findings by demonstrating that females generally experience higher levels of anxiety than males. This further underscores the importance of addressing and managing anxiety-related concerns among female athletes (Bahrami & Yousefi, 2011;

Schaller *et al.*, 2016) [3, 8]. In relation to the type of sport, it was observed that athletes participating in individual sports reported significantly higher levels of general sport anxiety. These findings align with previous research, which has consistently indicated that athletes engaged in individual sports tend to be more susceptible to competitive anxiety when compared to those involved in team sports (Kirkby & Liu, 1999; Ramis *et al.*, 2015) [11, 12]. This could be attributed to the fact that individual athletes bear the sole responsibility of achieving desired outcomes, intensifying anxiety symptoms. However, the worry subscale of the study revealed a contradictory result, with team sports athletes demonstrating significantly higher levels of worry compared to individual sports athletes. This suggests that athletes in team sports experience greater worry compared to their counterparts in individual sports (Turman, 2003) [13]. The desire for good performance in team sports is closely tied to acceptance and approval by team members, fostering positive interpersonal relationships. Furthermore, team

members, along with spectators, parents, and coaches, constantly assess and evaluate each other's performance and contribution to the team's success or failure. These additional pressures are likely to trigger feelings of anxiety, particularly in the form of worry.

### Conclusion

The findings of the study indicated that female exhibit a higher susceptibility to anxiety compared to male. This heightened vulnerability can be attributed to the manner in which girls employ thought control strategies and engage in metacognitive beliefs, which ultimately contribute to emotional and neurotic difficulties. Consequently, it is crucial to introduce and educate girls on alternative approaches for processing threatening situations. Based on the outcomes of this research, it is reasonable to assert that girls would benefit from acquiring knowledge about effective techniques that enable them to manage their metacognitive worrying thoughts. Furthermore, they should also learn how to modify their negative and positive metacognitive beliefs pertaining to worry in order to foster better mental well-being.

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