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A comparative analysis: Exploring competition anxiety among male and female athletes in individual and team sports

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Abstract

This study aimed to compare competition anxiety between male and female individuals and team sports players. A total of 144 players from Pondicherry University and its affiliated colleges were selected for the study. Out of 144 players, 75 from individual sport (athletics consist of 50 males and 25 females) and 69 from team sport (football consists of 46 men and 23 women), students between the ages of 18 to 25 years were chosen for the study. “The Sport Competition Anxiety Test (Martens, 1977)”, widely referred to as the SCAT questionnaire, served as the criterion measure. We employed the t-test to determine the difference between two means and the standard deviation as the descriptive statistics. The current study exclusively considered a 0.05 level of significance. All calculations were conducted using the statistical software SPSS version 21. This study revealed that there were no significant differences in competition anxiety between male and female players in team sports. Similarly, in individual sports, there were no significant differences in competition anxiety.

Keywords: Competitive anxiety, male, female, individual sports, team sports

Introduction

Anxiety refers to the examination of human behaviour, whereas sports anxiety is a specialized area within psychology that focuses on the anxiety experienced by athletes and teams participating in competitive sports. Sports anxiety deals with how people feel anxious on the field, both during practice and competition. It aims to improve performance and maintain it during competitions. (Uditanshu Arya, 2023)

Anxiety is a normal reaction to stress or worry about what will happen in future events. It is characterized by feelings of fear, worry, or unease. It can change how you think and feel physically, which is why it is such an important topic in sports psychology. Athletes of all skill levels often experience this. Studies indicate that both male and female athletes experience anxiety, although the underlying causes and expressions vary. Male athletes generally display elevated levels of competitive anxiety attributable to performance pressure and societal norms that prioritize success. On the other hand, female athletes may be anxious about their body image and how well they fit in with others because they have to deal with the pressure to conform to feminine ideals while still performing well in their sport. (SMOLL, 1990)

“Martens *et al.* (1990) distinguished between two aspects of competitive anxiety: cognitive and somatic anxiety”. Cognitive anxiety can disrupt an athlete's ability to concentrate, make decisions, and maintain confidence during competitions. In contrast, somatic anxiety can affect an athlete's performance by affecting coordination, agility, and fine motor skills. Somatic anxiety typically decreases dramatically during competition, whereas cognitive anxiety changes depending on the event's progress. Research suggests that performance errors are caused by cognitive anxiety rather than by physiological discomfort. (Jarvis, 1999) In studies on stress and anxiety, trait-state anxiety theory finds possible correlations between significant variables and provides a broad framework for analysis. “Ogilvie (1990) analyzed sports personality research and found that elite athletes have unique personality traits. Ogilvie discovered that great athletes are more resilient to emotional stress, have lower anxiety levels, and are emotionally calm”. (SMOLL, 1990).

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Objective of the study

This study aimed to compare competitive sports anxiety between male and female individual and team sports players.

Methods and Materials

Participants: A total of 144 players from Pondicherry University and affiliated colleges, aged 18 to 25 years, were randomly chosen to serve as study participants. Among them, 48 females (25 individual players, 23 team players) and 96 males (50 individual players, 46 team players) took the test.

Table 1: Demographic information of the participants

Gender	Individual (athletics)	Team (football)	Total
Male	50	46	96
Female	25	23	48
Total	75	69	144

Test and Tools

“The Martens Sport Competition Anxiety Test (SCAT) Questionnaire (1977) was used to measure competition anxiety”. A questionnaire was distributed via the Google Forms platform to collect data from the participants.

Procedure and Scoring

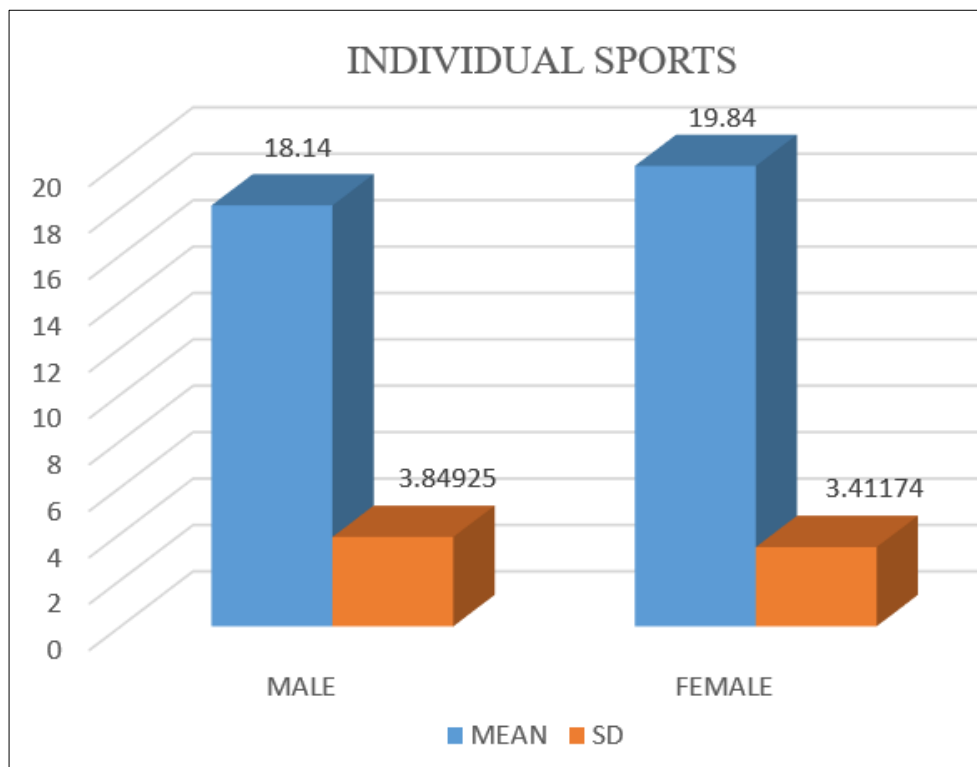
This study used the results of the Sports Competition Anxiety Test questionnaire. The competitive anxiety was measured using Marten's (1977) sports competition anxiety test (SCAT) in order to gather data. The test contained the following statements with scoring sequences of 1, 2, 3, 5, 6, 8, 9, 11, 12, 14, and 15. The scoring sequence for statements 6 and 11 was inverted based on the following key scores: rarely (1), sometimes (2), and often (3). Regardless of the answer, questions 1, 4, 7, 10, and 13 received zero points; as a result, they were excluded.

Statistical Analysis

Descriptive statistics, including the mean and standard deviation, were employed, and the significance between the two means was examined using a t-test. In this study, only a significance level of 0.05 was considered. SPSS software 21 was used for data analysis.

Results

Individual: The means of male and female individual sports players were 18.1400 and 19.8400, respectively, whereas the standard deviations of male and female players were 3.84925 and 3.41174, respectively (Table 2 and Graph 1).



Graph 1: shows the Mean and standard deviation of male and female individual sports players

Table 2: Shows the mean and SD of male and female individual sports

Individual	N	Mean	Std. Deviation	Std. Error Mean
Male	50	18.1400	3.84925	0.54437
Female	25	19.8400	3.41174	0.68235

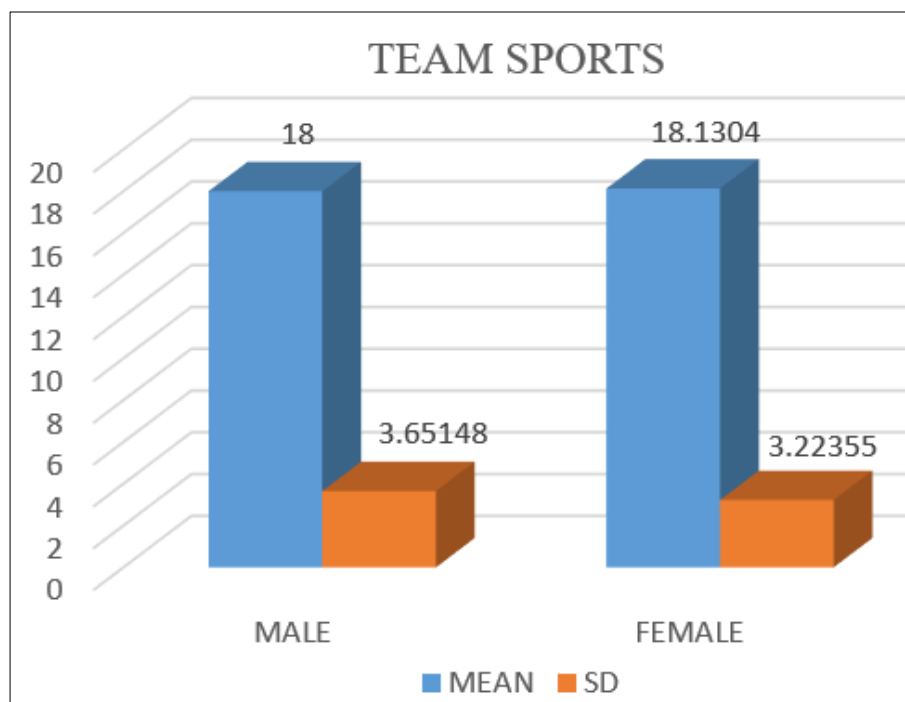
In accordance with the findings of the independent sample test (t-test), the value of Levene's Test for equality of variances of Equal Variances assumed will be taken into consideration when the p-value is 0.65, which is greater than 0.05 ($p > .05$), indicating that there is no significant difference between the male and female individual players.

Table 3: Independent sample test (t-test) for individual sports

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
Individual	Equal variances assumed	.872	.353	-1.870	73	.065	-1.70000	.90903	-3.51170	.11170
	Equal variances not assumed			-1.948	53.631	.057	-1.70000	.87289	-3.45031	.05031

Team: The means of male and female team sports players were 18.00 and 18.1304, respectively, whereas the standard

deviations of male and female players were 3.65148 and 3.22355, respectively (Table 4 and Graph 2).

**Graph 2:** shows the Mean and standard deviation of male and female team game players**Table 4:** Shows the mean and SD of male and female team sports players

Team	N	Mean	Std. Deviation	Std. Error Mean
Male	46	18.0000	3.65148	0.53838
Female	23	18.1304	3.22355	0.67216

The value of Levene's test will be considered. The results of the independent samples (t-test) show that there is no significant difference between the male and female individual players, with a p-value of 0.885, greater than 0.05 ($p > .05$).

Table 5: Independent sample test (t-test) for team sports

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
Team	Equal variances assumed	.995	.322	-.145	67	.885	-.13043	.89809	-1.92303	1.66216
	Equal variances not assumed			-.151	49.353	.880	-.13043	.86119	-1.86075	1.59988

Discussions of findings

According to the scoring manual, participants with scores below 17 were classified as low-anxiety players. An average level of anxiety is indicated by a score between 17 and 24, and a high level of anxiety is indicated by a score of > 24 . The participants showed an average degree of anxiety. Pre-competition anxiety in individual (athletics) and team (football) sports did not significantly differ between male and female players, according to the t-test results.

The findings of the present study have been duly endorsed by Prof. Jaowad Ali and Abdul Rahaman (2010) ^[1], (Ali,

2010) Who compared the competition anxiety of male and female weightlifters of Manipur and observed no significant difference in anxiety between male and female weightlifters, which comes under the individual category. Similarly, Pintu Sil (2016) ^[5] compared competition anxiety between male and female national-level basketball players in the team sports category and observed no significant difference. Moreover, Lakhan Kushwaha and Dr. Sarita Tyagi (2023) ^[7] (Tyagi, 2023) Examined sports competition anxiety in 100 national-level tennis and badminton players, focusing on gender differences. Results from the Sports Competition

Anxiety Test (SCAT) indicated that female athletes experienced significantly higher anxiety levels than males, which was linked to their reliance on thought control strategies and certain metacognitive beliefs. The researchers recommend teaching female athletes alternative coping strategies and promoting adaptive metacognitive skills to improve their mental health and resilience.

Kum Kavita Rathod and Dr. Hanumanthayya Pujari (2019) (Pujari, 2020) Aimed to compare the state anxiety levels of male and female volleyball players from Rani Channamma University in Belagavi. It was hypothesized that the two groups would have no significant differences. A total of 20 male and 20 female players were gathered using the General Anxiety Scale developed by Dr. Anil Kumar, allowing participants to complete the questionnaire without a time limit. Statistical analysis, including mean, standard deviation, and t-tests, revealed that there were no appreciable variations in the anxiety levels of male and female participants.

Similarly, Omeshwar Sanyal (2018) [4] assessed competitive anxiety in 60 intercollegiate athletes from Jammu University, comprising individual (athletics, badminton) and team players (basketball, kabaddi). Using the Sport Competitive, there were no discernible variations in the anxiety levels of male and female badminton players, according to the findings of the Anxiety Test (SCAT) and independent t-tests performed at a 0.05 significance level.

Conclusion

According to the results of the psychological variables of anxiety, male and female team sports players did not significantly differ in the anxiety sub-factors. In particular, there was no significant difference in competitive anxiety between male and female athletes. Similarly, no statistically significant difference was found in the anxiety levels of male and female competitors in individual sports. I suggest this research study to professionals like sports coaches, sports psychologists, physiotherapists, and training analysts to improve athletes' mental well-being both before and after competitions.

References

1. Ali PJ. A comparative study of sports competition. *Hum Kinet J Phys Educ Fit*. 2010 Aug-Dec;1-4.
2. Jarvis M. Sport psychology. In: Flanagan C, editor. London: Routledge; 1999.
3. Pujari KK. Comparative study of state anxiety level between male. *Int J Physiol Nutr Phys Educ*. 2020;5(1):56-7.
4. Sanyal O. A comparative study of sports competitive anxiety. *Int J Yogic Hum Mov Sports Sci*. 2018;3(1):1303-5.
5. Sil P. A comparative study on competition anxiety between. *Int J Phys Educ Sports Health*. 2016;3(1):133-4.
6. Smoll RE. Sport performance anxiety. New York: Springer Science+Business Media; 1990.
7. Tyagi LK. Comparative study on sports anxiety irrespective of. *J Sports Sci Nutr*. 2023;4(1):162-4. Available from: <https://doi.org/10.33545/27077012.2023.v4.i1c.165>
8. Arya U, DS. A study on precompetitive anxiety of university level. *Int J Sports Exerc Phys Educ*. 2023;5(1):32-5. Available from: <https://doi.org/10.33545/26647281.2023.v5.i1a.35>
9. Ariffin NAK, Anuar N, Azhar NA. Comparative analysis of athlete anxiety and performance between individual and team sports in Malaysia. *Int J Acad Res Bus Soc Sci*. 2025;15(2):759-66. Available from: <http://dx.doi.org/10.46886/IJARBS/v15-i2/15351>
10. Kemarat S, Theanthong A, Yeemin W, Suwankan S. Personality characteristics and competitive anxiety in individual and team athletes. *PLoS One*. 2022 Jan 14;17(1):e0262486. doi: 10.1371/journal.pone.0262486. PMID: 35030214; PMCID: PMC8759674.
11. Thatcher J, Thatcher R, Dorling D. Gender differences in the pre-competition temporal patterning of anxiety and hormonal responses. *J Sports Med Phys Fitness*. 2004 Sep;44(3):300-8. PMID: 15756170.
12. Topalak T. Examination of competitive state anxiety scores of 12-year-old tennis players by gender. *Perform Anal Sport Exerc*. 2023;2(1):11-7.
13. Krane V, Williams JM. Cognitive anxiety, somatic anxiety and confidence in track and field athletes: the impact of gender, competitive level and characteristics. *Int J Sport Psychol*. 1994;25:203-17.
14. Parfitt G, Pates J. The effects of cognitive and somatic anxiety and self-confidence on components of performance during competition. *J Sports Sci*. 1999;17(5):351-6.
15. Woodman T, Hardy L. The relative impact of cognitive anxiety and self-confidence upon sport performance: a meta-analysis. *J Sports Sci*. 2003;21(6):443-57.
16. Scanlan TK, Passer MW. Sources of competitive stress in young female athletes. *J Sport Psychol*. 1979;1:248-50.
17. Stavrou NA, Zervas Y, Kakkos, Pychoudaki M. Intensity and direction of competitive state anxiety. In: *Proc 2nd Int 5th Panhellenic Congr Athl Psychol*; 1998. p. 139-41. Trikala.
18. Stavrou NA, Psychoudaki M, Zervas Y. Intensity and direction dimensions of competitive state anxiety: a time-to-event approach. *Lab Motor Behav Sport Psychol, Dept Phys Educ Sport Sci, Univ Athens*. 2006;103(1):91-8.
19. Lochbaum M, Stoner E, Hefner T, Cooper S, Lane AM, Terry PC. Sport psychology and performance meta-analyses: a systematic literature review. *PLoS One*. 2022 Feb 16;17(2):e0263408. doi: 10.1371/journal.pone.0263408. PMID: 35171944; PMCID: PMC8849618.
20. Reigal RE, Vázquez-Diz JA, Morillo-Baro JP, Hernández-Mendo A, Morales-Sánchez V. Psychological profile, competitive anxiety, moods and self-efficacy in beach handball players. *Int J Environ Res Public Health*. 2020;17:241. Available from: <https://doi.org/10.3390/ijerph17010241>
21. Brown DJ, Fletcher D. Effects of psychological and psychosocial interventions on sport performance: a meta-analysis. *Sports Med*. 2017;47:77-99. Available from: <https://doi.org/10.1007/s40279-016-0552-7>