



Comparative Study Of Trait Anxiety Between Team Sports And Individual Sports Athletes From Goa

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ABSTRACT

*This study investigated differences in trait anxiety levels among national-level athletes from Goa participating in team sports and individual sports. Trait anxiety, defined as a stable tendency to perceive competitive situations as threatening, can significantly affect athletic performance, focus, and emotional regulation. Understanding how sport type influences anxiety can help design effective mental training strategies for athletes. A total of 108 athletes (54 team sport and 54 individual sport athletes) were selected using convenience sampling. All participants had competed at national-level sporting events. Data were collected using the Sport Anxiety Scale-2 (SAS-2), a validated instrument measuring three dimensions of anxiety: somatic anxiety, worry, and concentration disruption. Participants completed the 21-item questionnaire online, and data were analysed using descriptive statistics and an independent samples *t*-test. The results showed that individual sport athletes reported significantly higher trait anxiety ($M = 28.44$, $SD \pm = 7.47$) than team sport athletes ($M = 19.37$, $SD \pm = 5.12$). The difference was statistically significant ($t = -7.36$, $p < 0.00$), indicating that the type of sport influences anxiety levels. The higher anxiety observed in individual sports may stem from the solitary nature of performance and complete responsibility for outcomes. In contrast, team athletes benefit from shared responsibility and peer support. These findings highlight the need for sport-specific psychological interventions, especially for individual sport athletes, to manage competitive anxiety and enhance performance..*

Keywords: trait anxiety, team sports, individual sports, Sport Psychology



Introduction

Sports performance is influenced not only by physical abilities but also by psychological factors, among which anxiety is considered one of the most important determinants. Anxiety, particularly trait anxiety, can significantly influence athletic performance by producing emotional, cognitive, and physiological responses that may interfere with optimal execution during competition. Physiological symptoms such as increased heart rate, muscle tension, digestive discomfort, headaches, and shortness of breath demonstrate how anxiety affects both mental and physical functioning, ultimately influencing an athlete's competitive performance.

Within sports psychology, anxiety is recognized as a multidimensional construct consisting of cognitive, emotional, and physiological components. A clear distinction is made between state anxiety, which is temporary and situation-specific, and trait anxiety, which is a relatively stable personality characteristic. According to Spielberger (1983), trait anxiety refers to an individual's tendency to perceive a wide range of situations as threatening, resulting in consistently elevated levels of anxiety across different performance settings. Athletes with higher trait anxiety are therefore more likely to experience increased psychological stress during competition.

Previous research has suggested that the nature of sport participation may influence athletes' anxiety levels. Individual sport athletes often experience greater performance pressure because they bear complete responsibility for success or failure, whereas team sport athletes share responsibility with teammates and may benefit from greater social support and collective coping mechanisms (Jones, 1995; Hossein et al., 2016). Understanding these differences is important for developing sport-specific psychological interventions that can improve athletes' mental well-being and competitive performance.

The present study compared trait anxiety levels between national-level team sport athletes and individual sport athletes from Goa. Examining differences between these two groups provides a better understanding of how the structure of sport participation influences athletes' psychological responses and contributes to the development of effective mental training programmes.

- Objectives of the Study
 - To assess trait anxiety levels among national-level team sport athletes from Goa.
 - To assess trait anxiety levels among national-level individual sport athletes from Goa.



- To compare trait anxiety levels between team sport athletes and individual sport athletes.
- Hypotheses
 - Null Hypothesis (H_0): There is no significant difference in trait anxiety levels between team sport athletes and individual sport athletes.
 - Research Hypothesis (H_1): There is a significant difference in trait anxiety levels between team sport athletes and individual sport athletes.

The findings of this study are expected to contribute to the field of sports psychology by providing evidence regarding the relationship between sport type and trait anxiety. The results may assist coaches, sports psychologists, and athletes in developing targeted psychological interventions to improve emotional regulation, competitive performance, and overall athlete well-being.

Materials and Method

- **Research Design** : The present study employed a descriptive comparative research design to compare trait anxiety levels between national-level team sport athletes and individual sport athletes from Goa.
- **Participants** : The study included 108 national-level athletes from Goa, comprising 54 team sport athletes and 54 individual sport athletes. Participants were selected using a convenience sampling technique from the North and South Goa regions. The team sport group consisted of athletes participating in hockey, football, handball, kabaddi, cricket, kho-kho, volleyball, rope skipping, baseball, and softball. The individual sport group included athletes from boxing, badminton, cycling, cross-country, karate, athletics, powerlifting, bodybuilding, and judo.
- **Variables and Tools** : The dependent variable of the study was trait anxiety, while the independent variable was type of sport (team sports and individual sports). Trait anxiety was assessed using the Sport Anxiety Scale-2 (SAS-2) developed by Smith et al. (2006). The SAS-2 is a standardized 15-item questionnaire that measures three dimensions of trait anxiety: somatic anxiety, worry, and concentration disruption. Responses were recorded on a four-point Likert scale ranging from 1 ("Not at all") to 4 ("Very much"), with total scores ranging from 15 to 60. Higher scores indicated greater levels of trait anxiety. The SAS-2 has demonstrated satisfactory reliability (Cronbach's $\alpha > .80$) and established validity for assessing sport-related trait anxiety.
- **Procedure** : Prior to data collection, the necessary ethical approval and participant consent were obtained. Participants were informed about the purpose



of the study and were assured that their responses would remain confidential and would be used solely for research purposes. The SAS-2 questionnaire was administered digitally through QR codes and was completed either individually or in small groups of 10–15 athletes. All completed questionnaires were screened for completeness, and incomplete responses were excluded from the final analysis.

- **Statistical Analysis :** The collected data were analyzed using IBM SPSS Statistics Version 25.0. Descriptive statistics, including mean, standard deviation, and standard error, were calculated to summarize trait anxiety scores. An independent sample t-test was performed to compare the trait anxiety levels of team sport athletes and individual sport athletes. Statistical significance was established at $p < .05$.

Results

Table No.1 : *Descriptive Statistics of Trait Anxiety*

Game Type		N	Mean	Std. Deviation	Std. Error Mean
Trate Anxiety Score	Individual Sport	54	19.37	5.12	0.70
	Team Sport	54	28.44	7.47	1.02

Table 1 presents the descriptive statistics of trait anxiety scores for team sport and individual sport athletes. Individual sport athletes reported a higher mean trait anxiety score ($M = 28.44$, $SD = 7.47$) than team sport athletes ($M = 19.37$, $SD = 5.12$). The descriptive statistics indicate a difference in mean trait anxiety scores between the two groups, with individual sport athletes demonstrating higher levels of trait anxiety than team sport athletes. .

**Table 2** : Independent sample T-Test: Trait Anxiety in Team vs. Individual Athletes

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Diff	Std. Error Diff
Trait Anxiety Scoring	Equal variances assumed	7.35	0.01	-7.36	106.00	0.00	-9.07	1.23
	Equal variances not assumed			-7.36	106.00	0.00	-9.07	1.23

Table 2 presents the results of the independent samples t-test comparing trait anxiety scores between team sport and individual sport athletes. The analysis revealed a statistically significant difference between the two groups ($t = -7.36$, $df = 106$, $p < .001$). Individual sport athletes reported a higher mean trait anxiety score ($M = 28.44$) than team sport athletes ($M = 19.37$). The mean difference between the groups was -9.07 , with a 95% confidence interval ranging from -11.52 to -6.63 .

Discussion

The present study found that national-level individual sport athletes demonstrated significantly higher trait anxiety levels than team sport athletes. These findings are consistent with the results of Hossein et al. (2016), who reported that athletes participating in individual sports experience greater competitive anxiety than team sport athletes. Individual sport athletes are solely responsible for their performance and competitive outcomes, which may increase psychological pressure and contribute to higher levels of trait anxiety.

The findings are also supported by Jones (1995), who suggested that athletes competing in individual events often perceive greater personal responsibility, increasing the likelihood of experiencing anxiety during competition. In contrast, team sport athletes share responsibility with teammates and benefit from greater social support, communication, and collective coping strategies, which may help reduce perceived competitive stress. Similarly, Weinberg and Gould (2023) emphasized that



social support and team cohesion are important psychological factors that enhance athletes' confidence and reduce anxiety in competitive environments.

The higher trait anxiety observed among individual sport athletes may also be explained by the multidimensional nature of anxiety measured using the Sport Anxiety Scale-2 (Smith et al., 2006). Individual athletes may experience greater somatic anxiety, cognitive worry, and concentration disruption because performance outcomes depend primarily on their own abilities. These psychological demands can contribute to elevated trait anxiety compared with athletes participating in team sports.

The findings of the present study highlight the importance of incorporating psychological skills training into athletic preparation. Coaches and sport psychologists should develop sport-specific mental training programmes to help athletes manage competitive anxiety effectively. Interventions such as relaxation training, mindfulness, cognitive-behavioural strategies, imagery, and stress management techniques may be particularly beneficial for individual sport athletes. For team sport athletes, maintaining strong team cohesion, effective communication, and positive social support may further strengthen psychological resilience and competitive performance.

Overall, the findings suggest that the structure of sport participation plays an important role in influencing athletes' trait anxiety. Understanding these psychological differences can assist coaches, sport psychologists, and athletes in designing evidence-based interventions that promote mental well-being and optimize competitive performance.

Conclusion

The present study compared trait anxiety levels between national-level team sport athletes and individual sport athletes from Goa. The findings revealed that individual sport athletes exhibited significantly higher levels of trait anxiety than team sport athletes, leading to the rejection of the null hypothesis. These results indicate that the nature of sport participation is associated with differences in athletes' psychological responses.

The findings have practical implications for coaches, sport psychologists, and sports organizations in developing sport-specific psychological interventions to improve athletes' mental well-being and competitive performance. In particular, individual sport athletes may benefit from structured psychological skills training programmes aimed at reducing trait anxiety and enhancing emotional resilience.

Future research should examine additional psychological variables, such as coping strategies, self-confidence, emotional intelligence, and personality traits, using larger



and more diverse samples to further understand the factors influencing trait anxiety among athletes.

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