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Sport Competition Anxiety Among College Athletes: A Comparative Study Based on Gender

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***Abstract*-- The present study aimed to examine the levels of sport competition anxiety among college athletes and to investigate gender differences in anxiety levels. A total of 99 athletes (49 males and 50 females) aged 19–23 years were selected through accidental sampling from Pachhunga University College. The Sport Competition Anxiety Test (SCAT), developed by Martens (1977), was utilised to assess competitive anxiety. Descriptive statistics and independent samples t-test were employed for data analysis using SPSS version 25. Results indicated that athletes exhibited moderate to high levels of competition anxiety (M = 21.52, SD = 4.64). A statistically significant gender difference was observed, with female athletes (M = 23.90, SD = 3.64) reporting higher anxiety levels than male athletes (M = 19.80, SD = 4.30), t(97) = -6.023, p < .001. The findings underscore the significance of gender-sensitive psychological interventions within sports environments.**

***Keywords*--competition anxiety, athletes, gender differences, sports psychology**

I. INTRODUCTION

Competitive anxiety is a significant psychological factor influencing athletic performance. It characterises the tendency to perceive competitive scenarios as threatening, resulting in heightened nervousness and physiological arousal (Martens, 1977). Excessive anxiety may impair performance by disrupting concentration, coordination, and decision-making processes.

Sport psychology represents a specialized branch within the discipline of psychology, focused on analysing the impact of psychological factors on athletic performance, participation, and overall well-being. It also explores how engagement in sports and physical activities affects individuals' mental processes, emotions, and behaviours (Weinberg & Gould, 2019). In recent decades, sport psychology has evolved into an essential component of athletic training, emphasising not only physical conditioning but also mental readiness, emotional regulation, and performance enhancement.

Athletes are often subjected to high-pressure scenarios that require optimal performance amid uncertainty and assessment.

These circumstances frequently induce psychological reactions including stress, arousal, and anxiety. Notably, **competitive anxiety** has become one of the most thoroughly examined concepts within sport psychology owing to its immediate influence on performance results.

Athletic competition anxiety denotes the predisposition of athletes to perceive competitive scenarios as threatening, eliciting responses characterised by feelings of tension, nervousness, and physiological arousal (Martens, 1977). It is generally regarded as a multidimensional construct comprising cognitive anxiety (worry and negative expectations), somatic anxiety (physiological activation), and self-confidence (Martens et al., 1990). While a moderate level of anxiety may enhance alertness and readiness—thereby facilitating performance—excessive anxiety has the potential to impair concentration, disrupt motor coordination, and ultimately hinder athletic performance.

The connection between anxiety and performance has frequently been elucidated through theoretical frameworks such as the **Inverted-U Hypothesis** (Yerkes & Dodson, 1908), which asserts that performance enhances with increasing arousal up to an optimal point, after which further escalation results in diminished performance. More recent perspectives, including the multidimensional anxiety theory, propose that the cognitive and somatic elements of anxiety exert separate influences on performance.

Importantly, competitive anxiety does not impact all athletes uniformly. Variations among individuals, encompassing personality characteristics, skill levels, experience, and demographic factors such as gender, are instrumental in influencing anxiety responses. Empirical research has repeatedly demonstrated that female athletes often report elevated levels of competitive anxiety relative to their male counterparts, potentially attributable to disparities in emotional regulation, coping mechanisms, and sociocultural expectations (Gill, 1988; Jones et al., 1993).

Furthermore, the increasing focus on performance excellence in contemporary sports has heightened psychological pressures on athletes, especially at the collegiate level.

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College athletes are required to juggle academic responsibilities alongside athletic commitments, which may exacerbate anxiety levels. Although mental health in sports is gaining greater acknowledgement, there persists a necessity for additional empirical research to explore competitive anxiety within particular cultural and regional settings.

Gender disparities in competitive anxiety have been extensively examined, with evidence indicating that female athletes tend to report elevated anxiety levels compared to their male counterparts. Consequently, a comprehensive understanding of sport competition anxiety is crucial for the formulation of effective psychological interventions, the enhancement of athletic performance, and the promotion of mental well-being among athletes.

Martens, Vealey, and Burton (1990) conceptualized competitive anxiety as consisting of cognitive and somatic components, emphasising that cognitive anxiety (such as worry and negative expectations) exerts a more adverse influence on performance than somatic anxiety. Their research established the basis for employing standardized instruments like the SCAT in evaluating athletes' anxiety levels.

Smith, Smoll, and Schutz (1990) discovered that athletes experiencing elevated levels of competitive anxiety generally demonstrate reduced performance consistency. Their research underscored that anxiety impacts not only performance results but also affects athletes' confidence and motivation. Weinberg and Gould (2019) further elaborated that moderate levels of anxiety may enhance performance, aligning with the Inverted-U hypothesis; however, excessive anxiety can be debilitating. This indicates that optimal management of anxiety is essential for achieving peak athletic performance.

Gender disparities in anxiety are consistently documented within scholarly literature. Gill (1988) noted that female athletes are inclined to report elevated levels of competitive anxiety relative to their male counterparts, potentially attributable to socialization patterns that foster emotional expression among women. Correspondingly, Jones, Swain, and Hardy (1993) identified that female athletes tend to interpret anxiety symptoms more negatively than males, a factor which may intensify its detrimental impact on athletic performance.

In an Indian context, scholarly research has further corroborated these findings. For example, Kumar and Shukla (2018) documented notable gender disparities in sports anxiety among collegiate athletes, with female participants exhibiting elevated anxiety levels.

Cultural expectations and performance pressures were identified as contributory factors. Furthermore, Craft et al. (2003) performed a meta-analysis demonstrating that cognitive anxiety exhibits a more substantial negative correlation with performance in comparison to somatic anxiety, thereby emphasising the significance of psychological interventions.

Overall, the literature shows that competitive anxiety significantly influences athletic performance and that gender differences are important in shaping anxiety experiences. However, there is still a need for localized research, especially in regions like Mizoram, to better understand these dynamics within specific cultural contexts.

Objectives

1. To measure athletes' levels of competition anxiety.
2. To examine gender differences in sport competition anxiety.

Hypotheses

1. Athletes are expected to have above average levels of competition anxiety.
2. There will be significant gender differences in competition anxiety levels.

II. Methodology

Sample:

Ninety Nine (99) college athlete students were selected through non-probability sampling called accidental sampling. Athletes were selected from one college i.e, Pachhunga University College. The age range of athletes is between 19-23.The sample size consists of male(n= 49) and female (n=50).

Design Of The Study :

This study aims to measure the sport anxiety level of males and females among college students. Using a within-subject design and the SCAT scale, and a between-group design for gender (male & female).

Procedure:

Participants were approached and informed consent was obtained prior to data collection. Ethical guidelines as per the American Psychological Association (APA) were strictly followed, including confidentiality, anonymity, and the right to withdraw. Each participant received a consent form, demographic sheet and the SCAT questionnaire Participants completed the questionnaire without time constraints. After completion, a debriefing session was conducted, and participants were thanked for their contribution.

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III. Results And Discussions

Table 1
Reliabilty Statistics of the SCAT

Cronbach's Alpha	No. of Items
.808	15

Table 1 presents the Cronbach's Alpha coefficients for the Sport Competition Anxiety Scale.

The Cronbach's Alpha values for males and females in SCAT are .808, indicating a high level of reliability for this instrument.

Table 2 :
Descriptive Statistics for SCAT

	N	Minimum	Maximum	Mean	Std.Deviation	Skewness		Kurtosis	
	Statistics	Statistics	Statistics	Statistics	Statistics	Statistics	Std.Error	Statistics	Std.Error
SCAT Total	99	11	30	21.52	4.641	-.122	.243	-.755	.481
Valid N (Listwise)	99								

Table 2 indicates that the SCAT scores range from 11 to 30, with a mean of 21.52, and exhibit an approximately normal distribution characterised by minimal skewness and moderate kurtosis.

Table 3:
Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
SCAT TOTAL	Male	49	19.8	4.300	.614
	Female	50	23.90	3.638	.514

Table 3 demonstrates that females have a higher average SCAT TOTAL score (23.90) compared to males (19.8).

The standard deviations suggest that the variability of scores is somewhat greater among males. The standard error reflects the accuracy of the sample means.

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Table 4:
Independent Sample t-test on SCAT

Levene's Test For Equality of Variances		t-test for equality of means						
f	Sig.	t	df	Sig.(2tailed)	Mean Difference	Std.Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
.310	.579	-6.023	97	.000	-.4818	.800	-6.406	-3.231
		-6.013	93.761	.000	-4.818	.801	-6.409	-3.227

Table 4 indicates that female participants possess a significantly higher average SCAT total score compared to male participants. The approximate difference of 4.82 points is practically meaningful, contingent upon the scale's interpretation. The substantial negative t-value (–6.023) and the narrow confidence interval underscore a strong effect, implying that the gender disparity is unlikely to be attributable to random variation.

The findings endorse the initial hypothesis, indicating that athletes experience moderate to high levels of competition-related anxiety. This aligns with existing scholarly literature, which suggests that competitive environments inherently provoke psychological stress and increased arousal among athletes (Weinberg & Gould, 2019; Martens et al., 1990). Empirical evidence further corroborates this conclusion. For example, a meta-analysis conducted by Craft et al. (2003) demonstrated that competitive anxiety—particularly cognitive anxiety—exhibits a significant correlation with performance outcomes, with elevated anxiety levels often associated with diminished performance efficiency. Similarly, Smith et al. (1990) observed that athletes exhibiting higher levels of sport-specific anxiety tend to demonstrate lower consistency in their performance and diminished confidence. These findings reinforce the notion that competition naturally elicits anxiety responses among athletes.

The second hypothesis was confirmed by a significant gender disparity: female athletes exhibited higher levels of anxiety compared to their male counterparts. This finding corroborates previous research indicating that females frequently report elevated competitive anxiety. Gill (1988) observed that female athletes scored higher on sport anxiety assessments than males, attributing this to socialization processes and emotional expressiveness. Furthermore, Jones et al. (1993) discovered that women not only experience greater anxiety but also interpret their symptoms more negatively, potentially exacerbating performance outcomes. In India, Kumar and Shukla (2018) also identified that female college athletes display markedly higher levels of competition anxiety. A meta-analysis conducted by Woodman and Hardy (2003) further substantiated that gender differences significantly influence the anxiety–performance relationship, with females generally experiencing more pronounced cognitive anxiety effects.

IV. Conclusion

The study demonstrates that competition anxiety constitutes a significant psychological trait among college athletes, characterised by moderate to high levels of anxiety, thereby supporting the premise that competitive sports induce stress and arousal (Martens et al., 1990; Weinberg & Gould, 2019).

Furthermore, it identified a notable gender disparity, with female athletes exhibiting higher SCAT scores, a finding corroborated by a statistically meaningful mean difference, a substantial t-value, and a narrow confidence interval, thus supporting the second hypothesis. This is consistent with existing research indicating that females are more susceptible to competitive anxiety owing to emotional, cognitive, and sociocultural influences (Gill, 1988; Jones et al., 1993; Woodman & Hardy, 2003). These results underscore that competition-induced anxiety is prevalent and exhibits variability across genders, thereby underscoring the necessity for psychological interventions such as anxiety management, cognitive restructuring, relaxation techniques, and mental skills training to enhance athletic performance and overall well-being. The study contributes to the body of literature on sport-related anxiety and emphasises the importance of addressing competitive anxiety, particularly among female athletes, to foster improved performance, resilience, and holistic development.

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