

A Study of Pre-Competition Anxiety and Aggression among University Athletes

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Article Info	ABSTRACT
Article History: Received: 15th Dec 2025 Accepted: 19th Dec 2025 Published: 20th Dec 2025 Keywords: <i>Anxiety, Aggression, SCAT, Buss-Perry, Athletes</i>	The present study investigated pre-competition anxiety and aggression among university athletes. Sixty-four players participated in total, with equal representation of males (n = 32) and females (n = 32). Competitive anxiety was assessed with the Sport Competition Anxiety Test (Martens, 1977), while aggression was measured using the Buss-Perry Aggression Questionnaire (Buss & Perry, 1992). Statistical analysis included descriptive measures, independent-samples t-tests to examine gender differences, and one-way ANOVA for comparisons across groups. The findings revealed that female athletes experienced higher levels of pre-competition anxiety, whereas male athletes showed greater aggression. A negative correlation emerged between anxiety and performance ratings. These results highlight the importance of structured psychological preparation, including breathing routines, goal setting, and positive self-talk, as practical strategies for coaches to enhance competitive readiness.

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1. Introduction

Psychological factors are widely recognized as key determinants of athletic performance, influencing not only physical readiness but also tactical decision-making and confidence. Among these, anxiety and aggression are particularly influential.

Pre-competition anxiety often manifests in the form of worry, physical tension, and loss of concentration. Its impact on performance is explained by models such as the inverted-U hypothesis and threshold theories, which suggest that moderate arousal enhances performance, while very low or excessive levels tend to impair outcomes.

Aggression can be functional when instrumental and controlled, as it may improve assertiveness and competitive dominance. However, hostile or uncontrolled aggression often results in penalties, injuries, and poor decisions. In the Indian university context, systematic comparisons of anxiety and aggression across sports remain limited. This study therefore seeks to address that gap and generate applied implications for coaches and sport psychologists.

2. Review of Literature

Martens (1977): Developed the Sport Competition Anxiety Test (*SCAT*) to measure competitive anxiety.

- **Buss and Perry (1992):** Defined aggression as a multidimensional construct with four components: physical aggression, verbal aggression, anger, and hostility.
- Meta-analyses report that females generally show higher competitive anxiety, while males tend to display greater aggression in competitive settings.
- Research on Indian team sports indicates that aggression varies with situational demands such as contact level, rule enforcement, and officiating.
- Interventions like mindfulness, guided breathing, and imagery have proven effective in reducing anxiety and improving attentional control.

3. Objectives

1. To compare pre-competition anxiety between male and female athletes.
2. To compare levels of aggression among athletes from different sports contexts.
3. To examine the association between anxiety and performance.
4. To provide practical recommendations for university-level coaches.

4. Methodology

Design and Sample

A cross-sectional comparative design was adopted. The sample consisted of 64 athletes (32 male, 32 female).

Instruments

- SCAT (Martens, 1977) for competitive anxiety.
- Buss-Perry Aggression Questionnaire (1992) for aggression.
- Performance Index: created from coach ratings and event outcomes.

Procedure

Data were collected 24–48 hours before competition. Standardized instructions were provided. Participation was voluntary, and confidentiality was maintained.

Analysis

Data were analyzed using descriptive statistics (Mean, SD), independent-samples t-tests, one-way ANOVA, and Pearson correlations.

5. Results

Descriptive Statistics (Male & Female)

Table 1: Gender-wise Descriptive Statistics

Variable	Male(N=32)	Female(N=32)
Anxiety(SCAT)	18.5± 3.2	21.3± 3.6
Aggression(BP-AQ)	75.2± 8.5	70.1± 7.9

Table 2: Aggression by Sport Type

Sport	N	Mean Aggression(BP-AQ)
Kabaddi	24	78.2± 7.5
Kho-Kho	24	76.4± 8.1
Athletics	16	68.9± 6.9

Figures

- Figure 1:** Gender comparison of Anxiety & Aggression (Bar Chart).

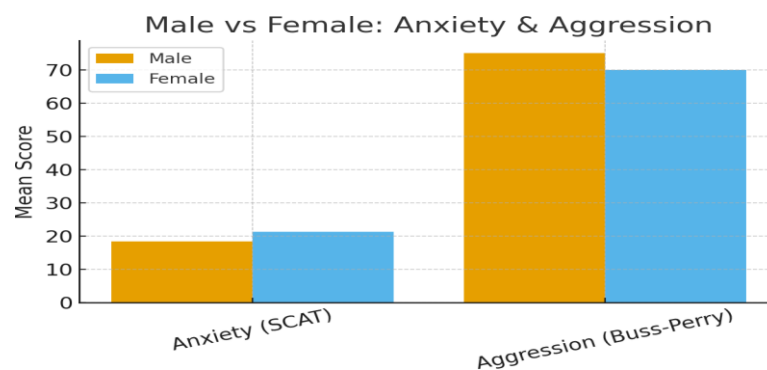
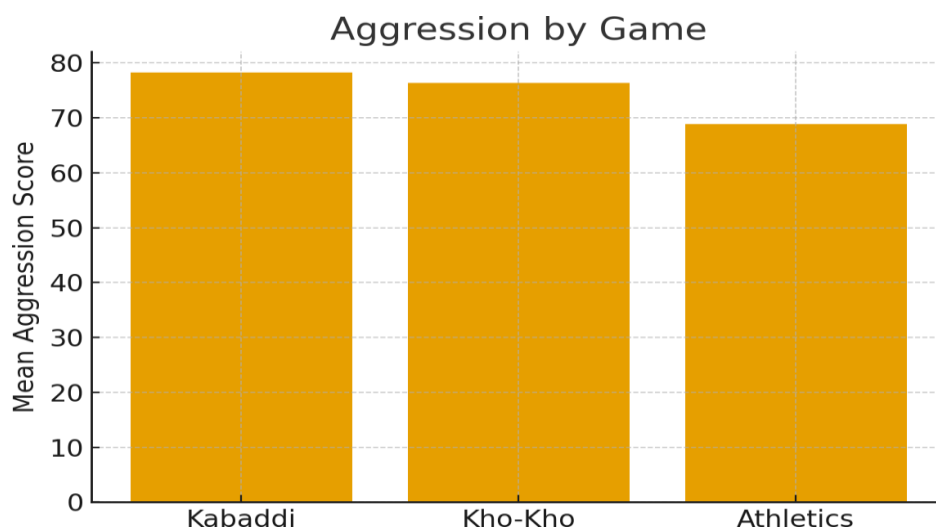
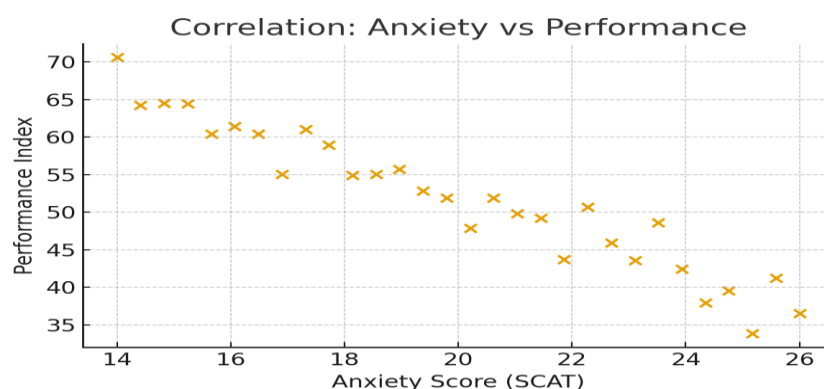


Figure 2: Aggression by Group (Bar Chart).



- **Figure 3:** Scatter plot of Anxiety vs Performance.



6. Discussion

The findings confirm earlier evidence that female athletes tend to experience higher pre-competition anxiety, while males display higher aggression. The greater aggression in contact sports supports the idea that the demands of physical interaction promote assertive play. However, uncontrolled aggression risks fouls, momentum loss, and injuries.

The negative relationship between anxiety and performance suggests that excessive worry and physical tension undermine outcomes, particularly in sports requiring technical precision. Coaches should therefore employ flexible strategies, helping athletes achieve optimal arousal levels and channel aggression productively.

7. Key Findings

- Female athletes experienced higher anxiety.
- Male athletes demonstrated greater aggression.
- Contact-oriented groups showed higher aggression than non-contact groups.
- Anxiety correlated negatively with performance.

Recommendations

- Implement structured pre-competition routines (breathing, imagery, self-talk).
- Train athletes to differentiate between assertive and hostile aggression.
- Conduct psycho-education workshops each semester for athletes and coaches.
- Use quick anxiety assessments before events and refer high-risk athletes for counseling.

8. Limitations and Future Research

This study was limited by its cross-sectional design and relatively small sample. Performance indices partly relied on subjective coach ratings. Future research should include longitudinal designs, physiological indicators (HRV, EMG), additional sports, and intervention-based evaluations to strengthen practical applications.

9. References

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