

Relationship Between Competitive Anxiety and Performance in University Rugby Players

¹Anishka Singh, ²Dr. Ravi Kumar

¹ Research Scholar, Department of Physical Education, Guru Kashi University, Talwandi Sabo, Punjab, India

² Professor, Department of Physical Education, Guru Kashi University, Talwandi Sabo, Bathinda, Punjab, India

Email Id: ¹ rajputvaani2004@gmail.com, ² ravikumar.gahalawat@gmail.com

Accepted:20.07.2026

Published:10.08.2026

Page No.18 – 20

DOI: 10.5281/zenodo.21786097

Abstract— This study examined competitive anxiety and its relationship with selected rugby skill-performance measures among university players. Twenty inter-university rugby players from Panjab University, Chandigarh (10 males and 10 females; 18–25 years) were selected through non-probability sampling. Competitive anxiety was assessed with the Sport Competition Anxiety Test (SCAT), and performance was evaluated through catching, tackling, and passing measures. Descriptive statistics, an independent-samples *t*-test, and Pearson product-moment correlations were used at the 0.05 significance level. Female players reported a higher mean SCAT score than male players (19.0 versus 16.8), but the difference was not statistically significant, $t(18) = -1.48$, $p = .155$. Competitive anxiety was negatively related to catching ($r = -0.314$), tackling ($r = -0.129$), and passing ($r = -0.098$); however, none of these relationships was statistically significant. The performance skills were positively interrelated, particularly tackling and passing ($r = 0.921$, $p < .001$). The findings indicate that anxiety existed among the players but did not significantly explain the selected skill-performance outcomes in this small sample.

Keywords— competitive anxiety, rugby, SCAT, sport performance, university players.

I. INTRODUCTION

The athlete's performance in sports varies on his physical preparation, technical skills, tactical competence and psychological condition. At more advanced levels, factors such as confidence, concentration, motivation, emotional control and

regulation of pressure can affect whether an athlete executes learned skills successfully. Psychological preparation is considered a part of the training and not an add on, so the research in rugby and all sport psychology looks at it [2], [3].

Before taking part in any competition an athlete may experience worries and fears and this is termed as competitive anxiety. Anxiety can manifest in a variety of ways. Such as negative thought patterns through which a person experiences fear of failure. Also, a somatic manifestation may include an elevation in heart rate, sweating, muscular tension, and interrupted breathing. A manageable level of arousal helps you to be alert. If a person is too anxious, it can affect his attention, coordination, decision-making, and confidence level [4]–[6].

Rugby is strenuous and demands catching, tackling, and passing on the run while under social pressure. Players have to think tactically while dealing with physical contact, crowd expectations, selection pressure, and error fear. Earlier researches in rugby have linked competitive anxiety and psychological-skill use with performances-related responses. Thus, it is pertinent to evaluate them in the university context [1], [2].

Within India, literature surrounding university level rugby players remains limited, especially among mixed-gender samples. As such, the present investigation determined competitive anxiety of male and female rugby players, and its relationship with selected rugby skill-performance measures.

II. OBJECTIVES & RATIONALE

The study pursued the following objectives:

- A. To assess competitive anxiety among male and female university rugby players using the SCAT;
- B. To compare competitive anxiety between male and female players; and
- C. To examine the relationship between competitive anxiety and catching, tackling, and passing performance.

The rationale was that rugby combines technical execution with intense physical contact and time pressure. Understanding whether anxiety is associated with skill performance may assist coaches and sport psychologists in deciding when anxiety-management training is warranted [1], [2].

III. METHODOLOGY

A. Research Design and Participants

A descriptive correlational design was adopted. The sample consisted of 20 inter-university rugby players from Panjab University, Chandigarh: 10 male and 10 female players aged 18–25 years. Participants were selected through non-probability sampling based on availability and willingness. Players with at least two years of playing experience were included, whereas injured players were excluded. Informed consent was obtained and confidentiality was maintained.

B. Instruments and Procedure

Competitive anxiety was measured with the Sport Competition Anxiety Test (SCAT) developed by Martens [7]. Rugby performance was represented by scores for catching, tackling, and passing obtained through the Rugby Skill Performance Test used in the original study. Questionnaires and performance tests were administered in a standardized manner.

C. Statistical Analysis

Data were summarized using the mean, median, standard deviation (SD), and standard error (SE). An independent-samples t-test compared male and female SCAT scores. Pearson product-moment correlation examined relationships among anxiety and rugby skills. Statistical significance was evaluated at $\alpha = 0.05$.

IV. RESULTS

TABLE I
DESCRIPTIVE STATISTICS FOR SCAT
SCORES

Group	Mean	Median	SD	SE
Male (n=10)	16.8	16.0	4.18	1.32
Female (n=10)	19.0	19.0	2.11	0.667

As shown in Table I, female players recorded a higher mean competitive-anxiety score ($M = 19.0$, $SD = 2.11$) than male players ($M = 16.8$, $SD = 4.18$). The descriptive difference was 2.20 SCAT points.

TABLE II
INDEPENDENT-SAMPLES T-TEST FOR
SCAT SCORES

t (df)	p	Mean Diff.	SE Diff.
-1.48 (18)	.155	-2.20	1.48

The gender difference was not statistically significant, $t(18) = -1.48$, $p = .155$. Thus, the observed higher mean among female players cannot be interpreted as reliable evidence of a gender difference in the population represented by this sample.

TABLE III
PEARSON CORRELATIONS AMONG SCAT
AND RUGBY SKILLS

Variables	r	df	p
SCAT–Catching	-0.314	18	.178
SCAT–Tackling	-0.129	18	.588
SCAT–Passing	-0.098	18	.681
Catching–Tackling	0.681	18	<.001
Catching–Passing	0.603	18	.005
Tackling–Passing	0.921	18	<.001

The significant negative correlations identified between competitive anxiety and catching, tackling and passing were weak-to-moderate and statistically non-significant. Conversely, there were positives connections between the rugby skill variables. The correlation between tackling and passing was found to be the highest ($r = 0.921$, $p < .001$).

V. DISCUSSION

Results reveal that female players reported slightly more competitive anxiety than male players, but this

difference was not statistically significant. Given the small sample size of 10 participants per group and the use of non-probability sampling, this finding should be interpreted with caution.

The SCAT correlation results were negative, reflecting higher anxiety with lower skill-performance scores. Nonetheless, the findings did not convincingly demonstrate any significant influence of competitive anxiety on catching, tackling, or passing in this sample. This pattern is consistent with findings in the literature, indicating that the relationship between anxiety and performance varies depending on skill level, psychological interpretation, mental toughness, and the competitiveness context [1], [2], [4]–[6].

The performance of rugby players in catching, tackling, and passing is strongly correlated. Namely, those who perform well in one skill tend to perform well in the other skills. The implication for coaches is that anxiety is not to be dismissed but something that should be trained psychologically and assessed technically. Where disruptive anxiety responses are evident in individual players, relaxation, breathing control, imagery, goal setting and confidence-building may be useful [2], [4].

VI. LIMITATIONS

Due to its small sample size, a single university, the use of non-probability sampling and self-reported anxiety, the study was limited. The variables of education, culture, residential background, family support, financial conditions, playing position, previous injuries, experience, strength of opponent, and present coping measures were not taken into consideration. Causal conclusions cannot be drawn as the designs are often cross-sectional.

VII. CONCLUSION

No significant differences in competitive anxiety were found between male and female rugby players. Competitive anxiety had a negative relationship with catching, tackling and passing (non-significant). As a result, competitive anxiety does not have

significant control on the performance of skilled rugby players. Nonetheless, overseeing and controlling anxiety remains pertinent because psychological preparedness may affect athletes differently depending on conditions and level of competition.

REFERENCES

- [1] N. F. M. Tarmizi and W. A. M. Wan Pa, “The relationship between competitive state anxiety and agility performance among rugby players,” *Multilingual Academic Journal of Education and Social Sciences*, 2024.
- [2] R. Neil, S. D. Mellalieu, and S. Hanton, “Psychological skills usage and the competitive anxiety response as a function of skill level in rugby union,” *Journal of Sports Science and Medicine*, vol. 5, no. 3, pp. 415–423, 2006.
- [3] M. Lochbaum and A. M. Lane, “Mapping sport psychology – performance relationships: A PRISMA-ScR scoping review,” *Sports*, vol. 13, no. 12, Art. no. 420, 2025.
- [4] D. Mojtahedi, N. Dagnall, A. Denovan, P. Clough, S. Dewhurst, M. Hillier, K. Papageorgiou, and J. Perry, “Competition anxiety in combat sports and the importance of mental toughness,” *Behavioral Sciences*, vol. 13, no. 9, Art. no. 713, 2023.
- [5] R. Adhikari, G. Raj, V. Chaudhary, and S. A. Pullinger, “A sectional study on competitive sports anxiety in football players,” *Psychological and Behavioural Science International Journal*, vol. 22, no. 3, Art. no. 556086, 2024.
- [6] J. A. Domínguez-González, R. E. Regional, V. Morales-Sánchez, and A. Hernández-Mendo, “Analysis of competitive anxiety, self-confidence, and performance in young athletes,” *Sports*, vol. 12, no. 1, Art. no. 20, 2024.
- [7] R. Martens, *Sport Competition Anxiety Test (SCAT Manual)*. Champaign, IL, USA: Human Kinetics, 1977.