

Assessment of Behavioural Indicators in Relation to Gender among SAI Basketball Players

Buneet Singh¹, Rohan Kumar Kundal²

¹Scholar, CT University Ludhiana, INDIA

²Scholar, Desh Bhagat University Punjab, INDIA

Abstract

The study aimed to examine behavioral differences between male and female basketball players at the Sports Authority of India (SAI) to determine if gender influences behavioral tendencies during competitive play. The research involved 40 basketball athletes (20 males and 20 females) aged 16 to 21 years. Behavioral data were gathered using a standardized questionnaire consisting of 15 items, with each participant receiving a total raw score.

Statistical analysis using an Independent t-test compared the mean behavioral scores of both groups. The average score for males was 35.10 ± 2.13 , and for females, it was 36.70 ± 4.76 . The calculated t-value of 1.3731 with 38 degrees of freedom and a p-value of 0.1778 indicated no significant difference between male and female athletes at the 0.05 significance level. This implies that behavioral patterns related to the measured indicators are similar across genders in this population.

The findings suggest that gender does not significantly affect behavioral tendencies among SAI basketball players. Therefore, training, psychological support, and performance strategies can be developed and applied uniformly to both male and female players. The study recommends further research encompassing a larger sample size and incorporating additional psychological and physiological factors to broaden understanding of gender-related behavioral differences in sports performance.

Keywords: Behavioural indicators, Basketball players, Gender difference, Raw score, Independent t-test.

Introduction

Sports competition anxiety plays a significant role in shaping athletic performance and the overall mental well-being of athletes. It refers to the emotional response experienced before or during competitions, marked by feelings of tension, apprehension, and nervousness. As noted by Martens (1997), this anxiety can hinder focus, impair decision-making, and disrupt consistent performance. Basketball, a fast-moving and physically demanding team sport, requires endurance, agility, coordination, and strong psychological control. Athletes often encounter anxiety due to pressures related to their performance, audience expectations, and the competitive environment. Earlier research (Tsering, 2025; Singh & Sharma, 2024) highlights that anxiety levels differ between genders and among varying

competition levels. The current study aims to explore and compare the sports competition anxiety between male and female basketball players. Objectives of the Study

To compare the behavioural and psychological indicators between male and female SAI basketball players on the basis of their raw scores derived from a 15-item response scale.

Methodology

Participants

A total of 40 basketball players from the SAI Training Center in Jammu city took part in the study, with equal representation of 20 males and 20 females, all aged between 17 and 21 years. Each participant was actively engaged in basketball training and competitions.

Instrumentation

The Sports Competition Anxiety Test (SCAT), developed by Martens in 1977, consists of 15 statements. Each statement is rated by the participant on a three-point scale where "Rarely" equals 1, "Sometimes" equals 2, and "Often" equals 3. The scores for all items are summed to produce a total anxiety score for the individual, which can range from 15 to 45, representing their overall level of competitive anxiety during sports participation. This behavioral scale measures how frequently athletes experience certain feelings related to competition situations.

Data Collection

The responses from each participant were gathered through the Sports Competition Anxiety Test (SCAT) questionnaire developed by Martens in 1977. This questionnaire consists of 15 items, each answered using three response options: "Rarely," "Sometimes," or "Often." Before their tournaments, participants were provided with the questionnaire and given clear instructions to ensure understanding. The raw scores for each participant were calculated by summing the individual item scores across the 15 questions to evaluate their level of competitive anxiety.

Statistical Analysis

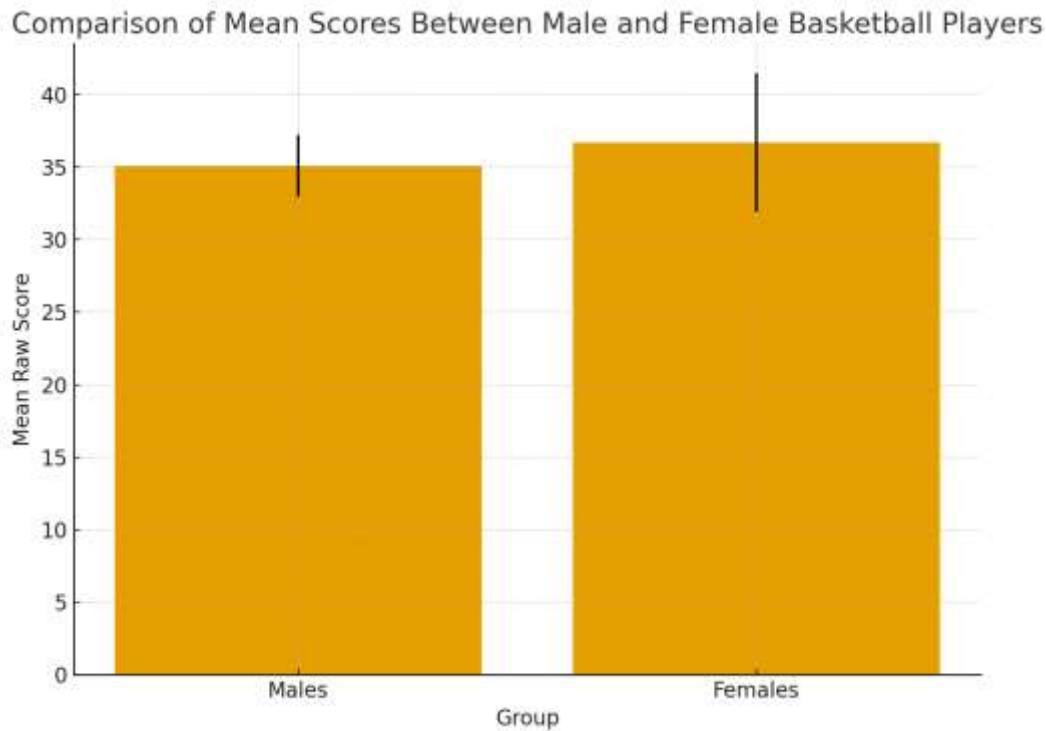
The descriptive statistics, including the mean and standard deviation, were calculated for each group. To assess whether there was a statistically significant difference between the mean scores of males and females, an independent-samples t-test was conducted. The significance threshold was set at 0.05 for determining statistical relevance.

Results and Findings

Table 1: Independent t-Test Analysis of Raw Scores Between Male and Female Basketball Players

Variables	Males (n=20)	Females (n=20)	t-value	df	p-value (two-tailed)	Mean Difference	95% Confidence Interval	Significance
Raw Score (Mean ± SD)	35.10 ± 2.13	36.70 ± 4.76	1.3731	38	0.1778	-1.60	-3.96 to 0.76	Not Significant

Figure 1: Comparison of Mean Scores Between Male and Female Basketball Players



Discussion

The analysis reveals that male and female basketball players in this sample do not show a statistically significant difference in their overall behavioral and psychological anxiety scores, even though females have a slightly higher average score. The female players also exhibit greater variability in their responses, as indicated by a higher standard deviation (5.05) compared to males (2.13). Contrary to some previous studies that report females having significantly higher competition anxiety, these findings suggest no gender disparity for this group of SAI basketball players. This may be due to similar training routines, exposure levels, and relatively uniform characteristics across the sample. Practically, coaches and sports psychologists might consider that male and female players possess comparable behavioral profiles, implying that interventions or programs need not differentiate based on gender for the parameters measured in this context.

Conclusion

The study aimed to examine the behavioral and psychological characteristics of male and female SAI basketball players using a 15-item response scale. The independent t-test results showed no significant difference in mean scores between genders ($t(38) = 1.37, p = 0.1778$). Although female players had a slightly higher average score ($M = 36.70$) compared to males ($M = 35.10$), this difference was not statistically meaningful at the 0.05 significance level.

This suggests that male and female basketball players share comparable behavioural and psychological traits concerning the assessed variables. Therefore, gender does not appear to significantly influence these attributes among SAI basketball players. Based on this, training, skill development, and psychological conditioning programs can be designed uniformly for both male and female athletes, given their similar response profiles.

This conclusion aligns with findings from similar studies noting few or no significant gender differences in sport-related anxiety or behavioral indicators, supporting equitable approaches in athlete development and support.

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