

A Comparison Study between the High and Low Level Male Hockey Players of Delhi for Sports Competition Anxiety Test (SCAT)

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Abstract

The purpose of the present study was to compare competitive anxiety levels between high-level and low-level male hockey players of Delhi using the Sports Competition Anxiety Test (SCAT). A total of 100 male hockey players ($N = 100$), aged between 15 and 23 years, were selected through purposive sampling. The sample consisted of 50 high-level and 50 low-level players. Descriptive statistics (mean and standard deviation) and an independent samples t -test were employed for statistical analysis. The mean SCAT score of high-level players was 17.70 ($SD = 2.37$), whereas low-level players obtained a mean score of 18.64 ($SD = 1.99$). The mean difference between groups was -0.94 . The independent samples t -test revealed a statistically significant difference, $t(98) = -2.14, p = .035$. The findings indicate that low-level players exhibit significantly higher competitive anxiety compared to high-level players. The results suggest that experience and competitive exposure may contribute to better anxiety management among higher-level athletes.

Keywords: competitive anxiety, SCAT, hockey players, psychological variables, performance level

Introduction

Psychological factors play a vital role in determining sports performance. Among these factors, competitive anxiety significantly influences an athlete's execution, confidence, and decision-making ability. Competitive anxiety refers to the tendency to perceive competitive situations as threatening and to respond with elevated state anxiety.

The Sports Competition Anxiety Test (SCAT), developed by Rainer Martens, is widely used to assess trait competitive anxiety in athletes. Higher SCAT scores indicate greater levels of competitive anxiety.

(Mouloud, 2019) conducted a study on a cohort of 61 adolescent male football players, ranging in age from 16 to 19 years. The study encompassed individuals who played various positions in soccer, including goalkeepers, defenders, midfielders, and forwards (sometimes known as attackers). The study sought to assess the levels of state anxiety among different participants. There was a notion proposing a significant variance in **anxiety** levels among players depending on their playing positions. As a player repeatedly plays at a given position, they automatically acquire the characteristics and demands associated with that position. Furthermore, the specific positions in which players are deployed might also have influence on their psychological state. The current investigation analysed young football players to ascertain the presence of any disparities. The Competitive State Anxiety Inventory-2 (CSAI-2) was utilised for data gathering. The study's findings indicated that the players' state anxiety level was classified as high. Notably, there was no noticeable disparity seen depending on the players' playing positions. The consistency in the results may be attributed to the participants' homogeneous age group, comparable experience to the game, and shared amateur status.

(Singh & Prakash, 2019) conducted a study to compare the levels of Sports Competition Anxiety among football players at different positions, specifically attackers and defenders. The study had a cohort of 40 players hailing from various universities. The study was partitioned into two cohorts: assailants and guardians, with each group including 20 participants. The ages of the individuals ranged from 17 to 25 years. The anxiety levels were assessed using the SCAT (Self-Reported Anxiety Test) developed by Rainer Martens et al. in 1990. The descriptive statistics of mean and standard deviation were analysed using an independent t -test. In contrast to the original idea, the study's results demonstrate a significant differential

between the attacker and defender players. The players on the offensive team exhibited indications of heightened anxiety. Thus, the defensive players demonstrated reduced levels of anxiety in contrast to their peers. The disparities may occur as a result of discrepancies in the type of activity and the players' degree of playing expertise.

In sports such as hockey, where quick decision-making, coordination, and sustained concentration are essential, anxiety levels may directly affect performance outcomes. It is generally assumed that athletes competing at higher levels develop better psychological coping mechanisms compared to those at lower levels.

Therefore, the present study aimed to compare SCAT scores between high-level and low-level male hockey players of Delhi.

Delimitations of the Study

The study was delimited by the following delimitations:

1. Level of participation of Hockey players should be State level.
2. Age ranged for samples should be 15- 23 years.
3. Sample size should be 100 male subjects including 50 low and 50 high level Hockey players.

Objectives of the Study

1. To determine the level of competitive anxiety among high-level male hockey players of Delhi.
2. To determine the level of competitive anxiety among low-level male hockey players of Delhi.
3. To compare competitive anxiety levels between high-level and low-level players.

Hypothesis

Null Hypothesis (H₀): There is no significant difference in SCAT scores between high-level and low-level male hockey players of Delhi.

Methodology

Participants

The study included 100 male hockey players from Delhi, aged between 15 and 23 years. The participants were divided into:

- High-Level Players (n = 50)
- Low-Level Players (n = 50)

Purposive sampling was used to select players based on their competitive participation level.

Variable

- **Independent Variable:** Playing level (high-level and low-level)
- **Dependent Variable:** Competitive anxiety (SCAT score)

Tool Used

The Sports Competition Anxiety Test (SCAT) questionnaire was used to measure competitive anxiety. The SCAT is a standardized instrument designed to assess trait anxiety in sports settings.

Statistical Analysis

Descriptive statistics (mean and standard deviation) were calculated. An independent samples *t*-test was conducted to compare the SCAT scores between the two groups. The level of significance was set at .05.

Results

Descriptive Statistics

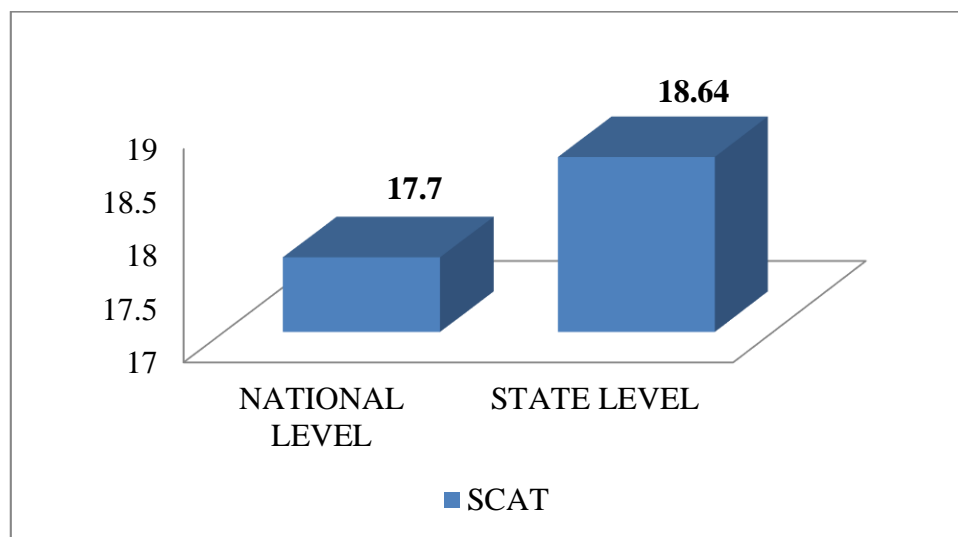
Table-1

Descriptive Statistics of SCAT Scores

Group	N	Mean	SD
High-Level Players	50	17.70	2.37
Low-Level Players	50	18.64	1.99

The mean SCAT score of low-level players (M = 18.64) was higher than that of high-level players (M = 17.70).

Figure-1: Graphical representation of mean values of SCAT of high and low level male players of hockey.



Inferential Statistics

Table-2

Independent Samples t-Test Comparing SCAT Scores

SCAT	Mean Difference	t-value	df	p-value
	-0.94	-2.14	98	.035

The independent samples *t*-test revealed a statistically significant difference between high-level and low-level players, $t(98) = -2.14, p = .035$. Since the obtained *p*-value is less than .05, the null hypothesis was rejected.

Discussion

The findings of the study indicate that low-level male hockey players exhibit significantly higher competitive anxiety compared to high-level players. The mean difference of -0.94 suggests that although the difference is moderate, it is statistically meaningful.

High-level players may have developed better psychological coping strategies through greater exposure to competitive environments, structured training programs, and performance experience. Repeated participation in competitions may enhance emotional regulation and confidence, leading to lower anxiety levels.

The results support the view that psychological preparedness is a crucial component of athletic success. Managing competitive anxiety is particularly important in hockey, where decision-making and coordination under pressure are essential.

Conclusion

The study concludes that a significant difference exists between high-level and low-level male hockey players of Delhi in terms of competitive anxiety measured by SCAT, $t(98) = -2.14$, $p = .035$. Low-level players demonstrated higher competitive anxiety than high-level players.

Practical Implications

1. Coaches should incorporate psychological skills training programs for low-level players.
2. Anxiety management techniques such as relaxation training, visualization, and breathing exercises should be emphasized.
3. Regular psychological assessment may help in monitoring athletes' mental preparedness.

Recommendations for Future Research

1. Future studies may include female hockey players.
2. Other psychological variables such as self-confidence and motivation may be examined.
3. Longitudinal studies may explore changes in anxiety levels over time.

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