



# A Comparative Study of Sports Competition Anxiety among University-Level Volleyball Players in Relation to Their Playing Positions

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## Abstract

The present study was conducted to compare sports competition anxiety among university-level volleyball players belonging to different playing positions namely libero, attacker, and setter. Psychological preparedness plays an important role in modern competitive sports, particularly in volleyball where players are continuously exposed to pressure situations and rapid tactical demands. The study aimed to identify whether significant differences existed in sports competition anxiety among volleyball players according to their positional responsibilities.

For the purpose of the study, 105 male university-level volleyball players from different universities of Chhattisgarh were selected as subjects. The age of the participants ranged between 18 and 27 years. The subjects were equally divided into three groups consisting of 35 libero players, 35 attacker players, and 35 setter players. Sports Competition Anxiety Test (SCAT) developed by Martens (1977) was used for the collection of data. Descriptive statistics such as mean and standard deviation were calculated, and Analysis of Variance (ANOVA) was employed to determine significant differences among the groups. Post Hoc analysis was also conducted to identify pairwise differences.

The findings revealed significant differences among libero, attacker, and setter volleyball players with respect to sports competition anxiety. Attacker players demonstrated the highest anxiety levels, followed by setters, whereas libero players showed the lowest anxiety scores. The results suggested that positional responsibilities and competitive demands significantly influence anxiety levels among volleyball players.

The study concluded that sports competition anxiety varies according to playing positions in volleyball and emphasized the importance of position-specific psychological training and anxiety management programs for university-level players.

**Key Words:** Sports Competition Anxiety, Volleyball, Playing Positions, Setter, Attacker, Libero, Sports Psychology

## 1. Introduction:

Volleyball is one of the most competitive and psychologically demanding team sports in the modern era. In addition to physical fitness and technical proficiency, successful volleyball performance requires emotional stability, concentration, confidence, and the ability to perform effectively under pressure situations. Psychological variables therefore play an important role in determining athlete behaviour and sports performance.

Sports competition anxiety is considered one of the most influential psychological variables affecting athletes during competition. Competitive anxiety refers to feelings of nervousness, emotional tension, fear of failure, and physiological arousal associated with sports participation. In volleyball, players frequently experience anxiety because of performance expectations, tactical responsibilities, and competitive pressure.

Modern volleyball involves specialized playing positions such as libero, attacker, and setter. Each playing position carries different technical and tactical responsibilities, which may influence the psychological behaviour of players. Attackers are mainly responsible for scoring points and therefore often perform under greater pressure. Setters coordinate offensive play and make tactical decisions during rallies, while liberos mainly focus on defensive stability and serve reception.

The present study aimed to compare sports competition anxiety among university-level volleyball players according to their playing positions.

### 1.1 Objectives of the Study:

- To compare sports competition anxiety among libero, attacker, and setter volleyball players.
- To identify positional differences in anxiety levels among university-level volleyball players.

### 2. Materials and Method:

#### 2.1 Selection of Subjects:

A total of 105 male university-level volleyball players from different universities of Chhattisgarh were selected randomly for the study. The age of the subjects ranged between 18 and 27 years.

The players were equally divided into three groups: 35 Libero players, 35 Attacker players and 35 Setter players

#### 2.2 Selection of Variables:

##### Dependent Variable

- Sports Competition Anxiety

##### Independent Variable

- Playing Positions (Libero, Attacker, Setter)

#### 2.3 Selection of Tools (Questionnaires):

Sports Competition Anxiety Test (SCAT) developed by Martens (1977).

#### 2.4 Statistical Procedure:

The collected data were analysed using: Mean, Standard Deviation, One-Way ANOVA and Post Hoc Test  
The level of significance was fixed at 0.05.

### 3. Result and Discussion of the Study:

Table 1, Descriptive Statistics

Playing Position	Mean	Standard Deviation
Libero	17.29	1.467
Attacker	26.09	1.579
Setter	20.89	1.641

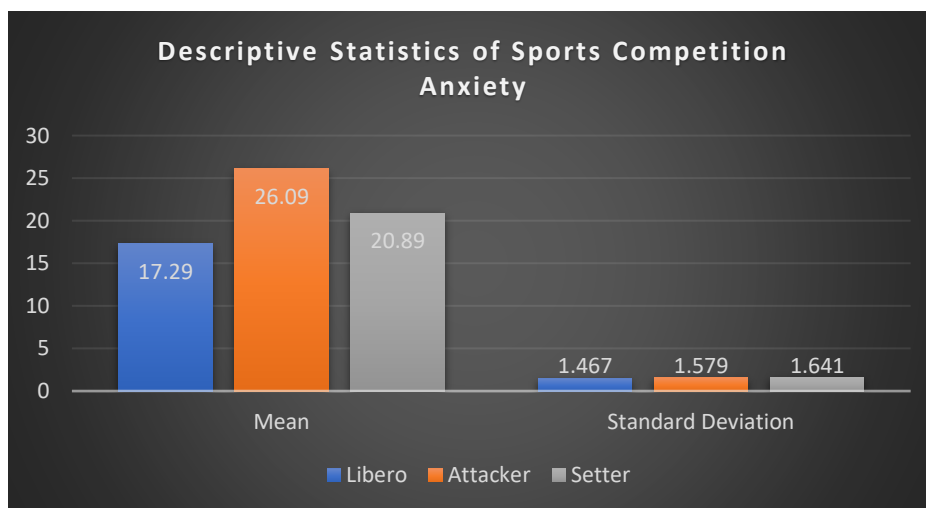


Fig. 1 Descriptive Statistics of Sports Competition Anxiety

The data presented in Table 1 show noticeable differences in sports competition anxiety among the three playing positions. Attacker players obtained the highest mean score (26.09), indicating that they experienced greater competitive anxiety compared to the other groups. Setter players recorded a mean score of 20.89, while libero players obtained the lowest mean score of 17.29.

The relatively low standard deviation values suggest that the responses within each group were fairly consistent. The higher anxiety observed among attackers may be attributed to their direct responsibility for scoring points and handling crucial offensive situations during a match. In contrast, liberos primarily perform defensive duties, which may involve comparatively lower psychological pressure.

**Table 2 Analysis of Variance for Sports Competition Anxiety**

Source of Variance	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1370.133	2	685.067	280.148	.000
Within Groups	249.429	102	2.445		
Total	1619.562	104			

The ANOVA results indicate that the obtained F-value (280.148) was statistically significant at the 0.05 level ( $p < .001$ ). This confirms that significant differences existed among libero, attacker, and setter volleyball players with regard to sports competition anxiety. Therefore, the alternate hypothesis was failed to reject.

**Table 3 Post Hoc Analysis for Sports Competition Anxiety**

Comparison	Mean Difference	Sig.
Libero vs Attacker	-8.800*	.000
Libero vs Setter	-3.600*	.000
Attacker vs Setter	5.200*	.000

The post hoc analysis further revealed that all pairwise comparisons were statistically significant. Attackers reported significantly higher anxiety than both setters and liberos, while setters also demonstrated significantly higher anxiety than liberos. These findings clearly suggest that sports competition anxiety varies according to playing position.

The results indicate that attackers face the greatest psychological pressure during competition, which may stem from their role as primary point scorers. Setters occupy an intermediate position because they are responsible for organizing offensive play and making rapid tactical decisions. Libero players, whose role is mainly defensive, experience comparatively lower levels of competitive anxiety.

#### 4. Discussion of the Findings:

The findings of the present study revealed significant differences in sports competition anxiety among libero, attacker, and setter volleyball players. The descriptive statistics showed that attackers obtained the highest mean score in sports competition anxiety, followed by setters, whereas liberos recorded the lowest anxiety scores. The Analysis of Variance (ANOVA) and Post Hoc analysis further confirmed that these differences were statistically significant.

The higher level of sports competition anxiety among attackers may be attributed to the nature of their playing role and responsibilities during competition. In volleyball, attackers are primarily responsible for scoring points through offensive actions such as spiking and attacking. They frequently perform under intense competitive pressure, particularly during crucial moments of the match where successful execution directly influences the outcome of the game. Because of these performance expectations, attackers may experience greater psychological pressure, fear of failure, and emotional tension during competition.

Setter players also demonstrated moderate levels of sports competition anxiety. This may be due to the fact that setters act as playmakers and are responsible for coordinating offensive strategies and making rapid tactical decisions during rallies. Their continuous involvement in directing team play and maintaining coordination may create psychological pressure and cognitive stress during matches.

In contrast, libero players demonstrated comparatively lower anxiety levels among the three groups. The libero position mainly focuses on defensive stability, serve reception, and rally continuation. Although the role is important for team performance, liberos are comparatively less involved in direct scoring responsibilities, which may reduce competitive pressure and anxiety levels during matches.

The findings of the present study are consistent with the studies conducted by Craft et al. (2003), Lu et al. (2010), and Rossi et al. (2024), which reported that competitive pressure and role-related responsibilities significantly influence anxiety levels among athletes. Previous studies also suggested that athletes performing offensive and leadership roles generally experience higher levels of competitive anxiety due to performance expectations and decision-making pressure.

Therefore, it may be concluded that sports competition anxiety varies according to the playing positions of volleyball players, and the nature of positional responsibilities plays an important role in influencing anxiety levels during competition.

## 5. Conclusion:

The study concluded that significant differences exist in sports competition anxiety among university-level volleyball players according to their playing positions. Attackers demonstrated the highest anxiety levels, setters showed moderate anxiety, and liberos displayed the lowest anxiety levels. The study highlighted the importance of position-specific psychological preparation and anxiety management training in volleyball.

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