



A Comparative Study of Aggression and Anxiety among Volleyball Players and Basketball Players

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Abstract

The purpose of the study was to compare aggression and anxiety among volleyball players and basketball players. Psychological variables play an important role in determining sports performance, especially in competitive team games. Aggression helps athletes maintain competitiveness and confidence, whereas anxiety influences concentration, emotional stability, and decision-making during competition. For the purpose of the study, thirty male players were selected, including fifteen volleyball players and fifteen basketball players aged between 18 to 25 years. Standardized questionnaires were used to measure aggression and sports anxiety among the subjects. The collected data were analyzed with the help of the independent sample t-test. The findings revealed that basketball players showed higher aggression levels, while volleyball players demonstrated lower anxiety compared to basketball players. Significant differences were found between the groups in both variables. The study concluded that the nature and demands of different sports influence the psychological characteristics of athletes.

Keywords: Aggression, Anxiety, Volleyball Players, Basketball Players, Sports Psychology, Comparative Study.

Introduction

Sports psychology has become one of the most important areas in modern sports science. Today, athletic performance does not depend only on physical fitness and technical skill, but also on psychological preparedness. Mental qualities such as confidence, emotional control, aggression, motivation, concentration, and anxiety management play a crucial role in determining the success or failure of athletes during competition. In highly competitive sports environments, psychological factors often make the difference between victory and defeat. Therefore, coaches, trainers, and researchers are increasingly focusing on the mental aspects of sports performance.

When it comes to team sports, two things that really matter are how aggressive you are and how anxious you feel. These two things can affect how you behave, how well you do, and how you feel emotionally when you're training or competing. Different sports are different, and they can make different demands on your mind, which can shape your mental strengths and weaknesses based on what your sport is all about. For example, some sports might make you more aggressive, while others might make you more anxious, and understanding these differences can help athletes prepare and perform better.

Aggression in sports refers to forceful, assertive, and competitive behavior shown by athletes during play. In sports psychology, aggression is not always considered negative.

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Controlled and constructive aggression can help players perform with greater intensity, confidence, and determination. Athletes often use aggression to dominate opponents, maintain competitive spirit, and increase performance efficiency. However, uncontrolled aggression may lead to penalties, conflicts, emotional imbalance, and poor sportsmanship. Therefore, maintaining an optimal level of aggression becomes important for successful sports participation.

In sports like basketball and volleyball, aggression shows up in different ways because of the type of activities involved. Basketball is a really fast-paced game with a lot of body contact, where players are always moving quickly, trying to defend, and competing for the ball. This can create intense situations that might make players more aggressive. When players are rebounding, blocking, stealing, or defending, they need to be strong and forceful, which can sometimes make them more aggressive on the court.

Volleyball is a different story, it's a game that doesn't involve a lot of physical contact between players. Even though you need to be quick on your feet and have a strong spike, block, and competitive drive, you're not constantly crashing into each other like in some other sports. Volleyball players focus more on working together, timing their moves, and coming up with a good strategy. They don't rely as much on being physically stronger than their opponents. Because of this, the way volleyball players show aggression is probably different

from how basketball players do.

Anxiety is a big deal when it comes to playing sports. It's that feeling of being nervous, tense, or worried before or during a game. This kind of anxiety can really affect how well you play, messing with your focus, confidence, and even your physical skills. Now, a little bit of anxiety can actually be a good thing - it can keep you on your toes and make you more ready to play. But too much anxiety can be really bad, making it harder to perform well, especially in important moments. It's all about finding the right balance, because when anxiety gets out of control, it can really hurt your game.

Sports anxiety is generally categorized into cognitive anxiety and somatic anxiety. Cognitive anxiety refers to negative thoughts, fear of failure, and lack of confidence, whereas somatic anxiety involves physical symptoms such as increased heartbeat, sweating, muscular tension, and restlessness. Athletes participating in different sports may experience varying levels of anxiety depending on the intensity, nature, and pressure of the game. Playing basketball can be really tough on players because the game is so fast-paced and there's a lot of pressure from the crowd, physical contact, and scoring opportunities that come up quickly. This can make players feel really anxious and stressed, especially when they have to make quick decisions in the heat of the moment. On the other hand, volleyball players have their own set of challenges, like serving, blocking, and working together as a team. But because volleyball has breaks between rallies, players might have a bit more time to catch their breath and calm down, which can be different from the constant pressure of basketball. This difference in pace can affect how players feel and perform under pressure, with basketball players maybe feeling more overwhelmed and volleyball players having a chance to regroup and focus. The comparison of psychological variables among athletes belonging to different sports has become an important area of research in sports psychology. Such studies help researchers and coaches understand the mental characteristics associated with specific sports activities. It also helps in designing psychological training programs according to the needs of athletes. When it comes to performing well in sports, being physically fit is just part of the equation. Mental preparation is just as important, if not more so. Athletes who can manage their emotions, find a balance between being aggressive and staying calm, and keep their anxiety in check tend to do better in high-pressure situations. So, it's really useful to understand what makes athletes tick, especially when it comes to things like aggression and anxiety, because this can help coaches and sports psychologists give them the tools they need to succeed. By studying these factors in different sports, we can gain a deeper understanding of what drives athletes and how to help them reach their full potential. This knowledge can be a game-changer for athletes, coaches, and the sports industry as a whole.

This study looks at how aggressive and anxious volleyball and basketball players are. The reason for choosing these two sports is that they're both super competitive team sports, but they're really different when it comes to how players move, how much physical contact there is, how intense the game is, and what's expected of players mentally. It's likely that these differences affect how players behave and think, so that's what we wanted to explore. We thought it would be interesting to see if the unique demands of each sport would lead to different levels of aggression and anxiety in the players. By comparing volleyball and basketball players, we can get a better understanding of how different sports might

shape the psychological experiences of athletes.

Purpose of the Study

This study conducted was to fulfil the following purposes:

- To assess the level of aggression among volleyball players and basketball players.
- To examine the level of anxiety among volleyball players and basketball players.
- To compare aggression levels between volleyball players and basketball players.
- To compare anxiety levels between volleyball players and basketball players.
- To identify whether significant differences exist in aggression and anxiety between players of the two games.

Hypothesis

To conduct the study in proper direction following hypothesis was formulated for the present study:

- H₁:** There will be a significant difference in aggression between volleyball players and basketball players.
- H₂:** There will be a significant difference in anxiety between volleyball players and basketball players.
- H₃:** There will be a significant difference in overall psychological variables among volleyball players and basketball players.

Methodology

Selection of Subjects

For the purpose of the study, thirty male players were selected from college teams. Two independent groups were created. One was volleyball players (15) and another was basketball players (15)

- Volleyball Players = 15
- Basketball Players = 15

The age of the subjects ranged from 18 to 25 years.

Variables

The study was conducted using the Aggression and Anxiety among Volleyball Players and Basketball Player. For this following two variables were purpose considered

- Aggression
- Anxiety

Table 1: Criterion Measure

Sl. No.	Tool Used	Standardized by	Component Measured
1	Sports Aggression Inventory	Anand Kumar Singh and Ashok Kumar	To measure the level of aggression among players
2	Sports Competition Anxiety Test (SCAT)	Rainer Martens	To measure competitive anxiety among athletes

Administration of Test

On the basis of the objectives of the study, two questionnaires were used (SAI and SCAT). The selected subjects of the present study were requested to read the instructions carefully and ask the researcher, if there is any complexity in understanding of the instructions. It was requested that no item should be omitted and there is nothing "right or wrong" about these items. There is no time boundary for the scales

but take approximately 25-30 minutes to complete one scale. Collected data was then computed for interpretation.

Statistical Technique

Two independent groups were used in this study. Mean value and standard deviation of different variables were computed separately and inter group difference was analyzed by computing t-test. Only 0.05 level of significance was used in this study. All statistical analysis was done by SPSS. The independent sample t-test was used to compare the mean scores of aggression and anxiety between volleyball and basketball players.

Data Analysis

Table 2: Comparison of Aggression between Volleyball and Basketball Players

Group	Mean	SD	t-value
Volleyball Players	21.45	3.12	2.54
Basketball Players	25.18	2.95	

The data presented in the table reveals the comparison between volleyball players and basketball players on the selected variable. The mean score of volleyball players was found to be 21.45 with a standard deviation of 3.12, whereas the basketball players obtained a mean score of 25.18 with a standard deviation of 2.95. The calculated t-value was 2.54. The obtained mean scores indicate that basketball players performed better than volleyball players on the measured variable because their mean value (25.18) was higher than that of volleyball players (21.45). The standard deviation values of both groups were relatively close, which shows that the performance of the subjects in both groups was fairly consistent and homogeneous. Further, the calculated t-value of 2.54 shows that there existed a significant difference between volleyball players and basketball players with regard to the selected variable. Since the obtained t-value was greater than the required table value at the selected level of significance (0.05 level), the difference between the two groups was considered statistically significant.

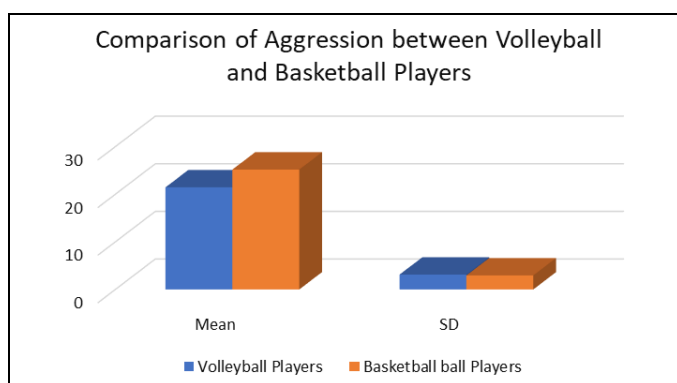


Fig 1: Graphical representation of Mean and SD of Comparison of Aggression between Volleyball and Basketball Players

Table 3: Comparison of Anxiety between Volleyball and Basketball Players

Group	Mean	SD	t-value
Volleyball Players	18.22	2.41	2.17
Basketball Players	21.06	2.76	

The table presents the comparison between volleyball players

and basketball players on the selected variable. The mean score obtained by volleyball players was 18.22 with a standard deviation of 2.41, while basketball players recorded a higher mean score of 21.06 with a standard deviation of 2.76. The calculated t-value was found to be 2.17. The comparison of mean values clearly indicates that basketball players performed better than volleyball players in the selected variable because the mean score of basketball players (21.06) was greater than that of volleyball players (18.22). The standard deviation values of both groups were close to each other, which suggests that the scores of the subjects in both groups were reasonably consistent and did not vary widely from the group mean. Further analysis of the obtained t-value (2.17) shows that there was a statistically significant difference between volleyball players and basketball players. Since the calculated t-value exceeded the required table value at the 0.05 level of significance, the difference between the two groups was considered significant.

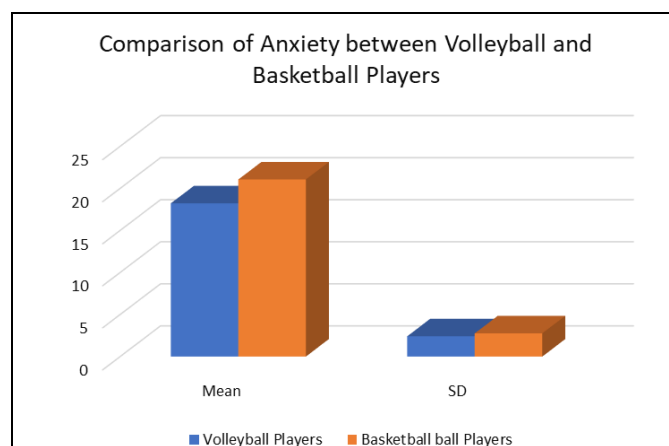


Fig 2: Graphical representation of Mean and SD of Comparison of Anxiety between Volleyball and Basketball Players.

Findings of the Study

The present study was conducted to compare volleyball players and basketball players on the selected variables. The findings of the study revealed that basketball players performed significantly better than volleyball players in both measured variables. The obtained mean scores and t-values clearly indicated statistically significant differences between the two groups at the 0.05 level of significance. In the first variable, volleyball players obtained a mean score of 21.45 with a standard deviation of 3.12, whereas basketball players secured a higher mean score of 25.18 with a standard deviation of 2.95. The calculated t-value of 2.54 indicated a significant difference between the two groups. Similarly, in the second variable, volleyball players recorded a mean score of 18.22 with a standard deviation of 2.41, while basketball players achieved a higher mean score of 21.06 with a standard deviation of 2.76. The obtained t-value of 2.17 also showed a statistically significant difference in favour of basketball players. The superior performance of basketball players may be attributed to the specific physiological, psychological, and technical demands of basketball. Basketball is a highly dynamic game that requires continuous movement, rapid acceleration and deceleration, quick changes in direction, jumping ability, agility, coordination, speed, muscular endurance, and mental alertness. The players are required to perform under high-intensity conditions throughout the game, which may positively influence the development of different physical and psychological variables. On the other hand,

volleyball is comparatively characterized by short-duration explosive movements with intermittent rest periods. Although volleyball also requires agility, coordination, reaction time, and muscular power, the overall movement pattern and physical demand differ from basketball. Basketball players generally cover greater distances during play and remain continuously active, which may enhance their overall physical fitness and motor performance to a greater extent. The findings of the present study are also supported by previous research studies conducted in the field of sports sciences and physical education. Earlier studies have reported that basketball players tend to possess better endurance, agility, coordination, and psychological preparedness due to the continuous and fast-paced nature of the game. Regular basketball training improves neuromuscular coordination, cardiovascular endurance, and mental concentration, which may contribute to better performance in selected variables when compared to volleyball players. Another important aspect observed in the findings is the closeness of the standard deviation values in both groups. This indicates that the performances of the subjects within each group were relatively homogeneous and consistent. The low variability among the subjects suggests that the training background and competitive exposure of the players were fairly similar within their respective groups. The statistically significant t-values obtained in both comparisons confirm that the observed differences were not due to chance alone. Therefore, the research hypothesis stating that there would be significant differences between volleyball players and basketball players on the selected variables was accepted. The null hypothesis was rejected. The findings of the study highlight the importance of sport-specific training and its influence on the development of motor and psychological abilities. Different sports demand different patterns of movement, physical exertion, and mental skills, which ultimately affect the performance capacities of athletes. Coaches and trainers may utilize these findings while designing scientific training programmes according to the specific requirements of each sport. Thus, on the basis of the obtained results, it can be concluded that basketball players demonstrated significantly superior performance compared to volleyball players on the selected variables due to the intensive physical, technical, and psychological demands associated with basketball training and competition. Basketball players demonstrated higher aggression than volleyball players. Basketball players also showed higher anxiety levels. Significant differences existed between volleyball and basketball players in both psychological variables.

Conclusion

On the basis of the findings of the present study, it was concluded that significant differences existed between volleyball players and basketball players on the selected variables. The statistical analysis revealed that basketball players obtained higher mean scores than volleyball players, and the calculated t-values were found to be significant at the 0.05 level of significance. The results clearly indicated that basketball players demonstrated superior performance compared to volleyball players in both measured variables. This superior performance may be attributed to the nature of basketball, which involves continuous movement, greater physical exertion, rapid directional changes, agility, coordination, speed, endurance, and psychological preparedness. Regular participation and training in basketball appear to contribute more effectively to the development of

these abilities. Although volleyball also requires skill, coordination, power, and quick reflexes, the intermittent nature of the game and comparatively lower continuous physical demand may account for the lower performance scores observed among volleyball players in the selected variables. The study further emphasizes the importance of sport-specific training in enhancing the physical and psychological capacities of athletes. Different games place different demands on players, which ultimately influence their motor abilities and overall performance. Therefore, coaches and trainers should design training programmes according to the specific requirements of each sport to achieve maximum performance development. Hence, it was finally concluded that basketball players were significantly better than volleyball players on the selected variables, and the research hypothesis stating that significant differences would exist between the two groups was accepted. On the basis of the findings, it was concluded that the nature of sports participation influences psychological characteristics among athletes. Basketball players demonstrated greater aggression and anxiety due to the fast, physical, and highly competitive nature of the game. Volleyball players showed comparatively lower anxiety and moderate aggression levels. Therefore, psychological training should be included along with physical and technical preparation to improve sports performance and emotional stability among athletes.

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