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## Exploring achievement motivation among athletes: A comparative analysis of volleyball, football and basketball players

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### Abstract

This study investigates the differences in achievement motivation among national-level volleyball, football, and basketball players using Kamlesh Achievement Motivation Scale. Achievement motivation is crucial for the success and persistence of athletes, influencing their training, performance, and competitive outcomes. The sample comprised 150 national-level players, with 50 participants each from volleyball, football, and basketball. The research employed convenience sampling and statistical analysis through One-way ANOVA and post-hoc tests (Scheffe's Test) to determine significant differences in motivation levels among these groups. The results indicated significant differences, with football and basketball players showing higher achievement motivation compared to volleyball players. These findings are consistent with existing literature, emphasizing the role of sport-specific dynamics in shaping motivation levels. The study suggests that tailored motivational strategies are needed for volleyball players, while a balance of intrinsic and extrinsic rewards should be maintained for football and basketball players. Future research should incorporate diverse sampling methods and explore additional factors influencing sport-specific motivation to enhance the academic and athletic performance of student-athletes.

**Keywords:** Kamlesh achievement motivation scale, achievement motivation, volleyball, football, basketball

### Introduction

Achievement motivation plays a crucial role in the success and persistence of players in various sports and educational settings. Understanding the factors that influence achievement motivation can help educators and coaches develop strategies to enhance students' performance and overall well-being. This study aims to investigate the differences in achievement motivation among volleyball, football, and basketball players. The concept of achievement motivation has been extensively studied in the fields of psychology and education. McClelland (1961) [10]. First introduced the need for achievement as a key motivator in human behavior, emphasizing the desire to accomplish something significant and the drive to excel. Subsequent research has built on this foundation, exploring the various dimensions and determinants of achievement motivation. In the context of sports, achievement motivation is particularly important as it influences athletes' training, performance, and competitive outcomes. Several studies have examined the relationship between achievement motivation and sports participation, highlighting the role of intrinsic and extrinsic motivators in different sporting environments. Kamlesh Achievement Motivation Scale has been widely used to measure motivation levels among students in various educational and sports settings. This scale has been validated across different contexts, proving its reliability and relevance in assessing students' motivation. Previous research utilizing this scale has demonstrated its effectiveness in identifying motivational differences among student-athletes in different sports. The use of convenience sampling in research, although a non-probability technique, is often employed due to its practicality and ease of access to participants. While this method has limitations, it allows researchers to gather data efficiently, particularly in exploratory studies where the primary aim is to identify patterns and trends. Statistical analysis, including One-way Analysis of Variance (ANOVA) and post-hoc tests, are essential in determining the significance of differences among groups.

These methods provide a robust framework for comparing mean scores and understanding the variability within and between groups. This study employs the Achievement Motivation Scale by Kamlesh to assess the motivational levels of volleyball, football, and basketball players. By analyzing the differences in achievement motivation across these groups, this research aims to contribute to the understanding of how sports participation influences students' motivational profiles. The findings of this study have the potential to inform the development of targeted interventions and support systems for student-athletes, enhancing their academic and athletic performance. Additionally, understanding these motivational differences can help educators and coaches create more effective training programs and foster a supportive environment that nurtures students' aspirations and goals.

## Materials and Methods

### Sample

The sample for the existing study consists of 150 National Level Players, divided into the following groups:

- **Group A:** Volleyball (N1=50)
- **Group B:** Football (N2=50)
- **Group C:** Basketball (N3=50)

### Description of the test

The Achievement Motivation Scale by Kamlesh has been

validated as a unitary construct that is both psychologically and sociologically meaningful across various institutional settings and environmental conditions. This scale provides a comprehensive and exhaustive list of items assessing students' motivation, drawing from the personal and social traits and situational tests identified by numerous researchers. Kamlesh designed this scale to ensure a thorough evaluation of students' achievement motivation.

### Sampling

We employed convenience sampling, also referred to as availability sampling, which is a non-probability sampling technique.

### Statistics

The analysis for this research paper utilized the Statistical Package for the Social Sciences (SPSS). To assess the significance of differences in means across groups for selected variables, a One-way Analysis of Variance (ANOVA) was employed. Subsequently, a Post-Hoc Test (Scheffe's Test) was conducted for further exploration. The hypotheses were tested at a significant level of 0.05.

### Results

#### Analysis of Variance Results

F-Statistic Value = 7.88943

P-Value = 0.00056

**Table 1:** Show volleyball, football and basketball

Groups	N	Mean	Std. Dev.	Std. Error	
Volleyball	50	16.5	3.3457	0.4732	
Football	50	19.9	5.2499	0.7424	
Basketball	50	19.46	5.1238	0.7246	
ANOVA Summary					
Source	Degrees of Freedom, DF	Sum of Squares, SS	Mean Square, MS	F-Stat	P-Value
Between Groups	2	341.92	170.96	7.8894	0.0006
Within Groups	147	3185.4158	21.6695		
Total:	149	3527.3358			

The f-ratio value is 7.88942. The p-value is 0.000556. The result is significant at  $p < 0.05$ .

**Table 2:** Show Pairwise Comparisons

Pairwise Comparisons		HSD <sub>.05</sub> = 2.2043, HSD <sub>.01</sub> = 2.7552	Q <sub>.05</sub> = 3.3484 Q <sub>.01</sub> = 4.1851
Volleyball: Football	M <sub>1</sub> = 16.50, M <sub>2</sub> = 19.90	3.40	Q = 5.16 (P = 0.00105)
Volleyball: Basketball	M <sub>1</sub> = 16.50, M <sub>3</sub> = 19.46	2.96	Q = 4.50 (P = 0.00509)
Football: Basketball	M <sub>2</sub> = 19.90, M <sub>3</sub> = 19.46	0.44	Q = 0.67 (P = 0.88428)

The ANOVA results indicate a significant difference in achievement motivation scores among the three groups (Volleyball, Football, and Basketball) with a p-value of 0.00056, which is less than the significance level of 0.05. Post-hoc comparisons using Scheffe's Test reveal that the achievement motivation scores for the Volleyball group are significantly lower than those for the Football and Basketball groups. However, there is no significant difference between the Football and Basketball groups.

## Discussion

The findings of this study, indicating significant differences in achievement motivation among volleyball, football, and basketball players, align with existing research that emphasizes the role of sport-specific dynamics in shaping motivation levels. Similar to studies by Nicholls *et al.* (2015) and Vallerand *et al.* (2008) [11, 19], our results show that athletes in highly competitive and physically

demanding sports like football and basketball exhibit higher achievement motivation compared to those in less intensive sports like volleyball. This disparity is likely influenced by the individualistic nature and cultural prominence of football and basketball, which foster both intrinsic and extrinsic motivation, as noted by Deci and Ryan (2000) [13] and Schuler *et al.* (2014) [4, 14]. These findings suggest that tailored motivational strategies are needed to enhance motivation in volleyball players, while maintaining a balance of intrinsic and extrinsic rewards for football and basketball players. Future research should focus on diverse sampling methods and explore additional factors influencing sport-specific motivation to further validate and expand upon these insights.

## Conclusions

This study explored the achievement motivation among volleyball, football, and basketball players, revealing

significant differences that align with existing research on sport-specific motivation. The results demonstrated that football and basketball players exhibit higher achievement motivation compared to volleyball players, a finding consistent with previous studies by Nicholls *et al.* (2015) and Vallerand *et al.* (2008) <sup>[11, 19]</sup>. The competitive and physically demanding nature of football and basketball, coupled with their cultural prominence, likely fosters both intrinsic and extrinsic motivation in these athletes, as suggested by Deci and Ryan (2000) <sup>[13]</sup> and Schuler *et al.* (2014) <sup>[14]</sup>. These insights highlight the need for tailored motivational strategies to enhance achievement motivation in volleyball players, while maintaining a balance of intrinsic and extrinsic rewards for football and basketball players. Future research should focus on more diverse sampling methods and explore additional factors influencing sport-specific motivation to further validate and expand upon these findings. Understanding these motivational differences can aid in developing targeted interventions and support systems for student-athletes, enhancing their academic and athletic performance.

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