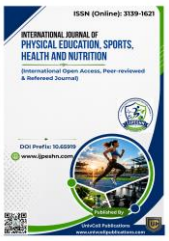
International Journal of Physical Education, Sports, Health and Nutrition

Volume 2 | Issue 1, January-April 2026, pp 1-8

ISSN (Online): 3139-1621

Homepage: https://ijpeshn.com



Title: Relationship of Selected Physical Variables with Raiding Performance of Kabaddi Players

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DOI: https://doi.org/10.65919/ijpeshn.2026.v2i1001

History: Received: 07 January 2026, Accepted: 12 February 2026, Published: 30 April 2026

Citation: Singh, S., Gupta, D., & Kaur, R. (2026). Relationship of Selected Physical Variables With Raiding Performance of Kabaddi Players. *International Journal of Physical Education, Sports, Health and Nutrition, 2*(1), 1-8. https://doi.org/10.65919/ijpeshn.2026.v2i1001

Conflict of Interest: The author(s) declare no conflict of interest.

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

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Published By: UnivColl Publications

RELATIONSHIP OF SELECTED PHYSICAL VARIABLES WITH RAIDING PERFORMANCE OF KABADDI PLAYERS

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ABSTRACT

The aim of this study was to find out the relationship of selected physical variables with the raiding performance of male Kabaddi players (raiders). Twenty inter-college level male kabaddi players were selected for this study by purposive sampling technique from Punjabi University, Patiala. The age of the subjects was ranged between 18-25 years. Selected variables: speed was measured by 50-meter dash and agility was measured by shuttle-run test. Descriptive statistics and Spearman rank correlation test was employed by 'SPSS Version-23'. The results showed that there was a significant relationship of speed and agility variables with the raiding performance of male kabaddi players (raiders).

Keywords: Kabaddi, Raiding Performance, Speed, Agility, Physical Fitness, Male Kabaddi Players, Sports Performance.

INTRODUCTION

Team Kabaddi is a complex intermittent game, which requires players to have well developed aerobic and anaerobic capacities. Motor ability, sprinting, jumping, flexibility and throwing velocity represent physical activities that are considered as important aspects of the game and contribute to the high performance of the team. Successful performance requires explosive power of the legs and arms, sprint velocity (Sibila, 1997).

The specific characteristic of Kabaddi demands from players an effective participation in activities that need a good aerobic and anaerobic response. However, some authors report that Kabaddi is a sport that demands predominantly the motor capacities that depend on the anaerobic metabolism. Thus, it seems reasonable to affirm that the motor capacities strength & velocity and their ways of manifestation are crucial, since the technical and

tactical capacities can be consistently superior when the Kabaddi players present high levels of adaptation of the anaerobic metabolism (Sibila, 1997).

Correlation means relationship between two variables. It is a measure of the extent to which two variables are related. A correlation is said to be positive if increase in one variable tends to be associated with an increase in the other. An example of such correlation would be age and weight, as the age increases, the weight of the children also increases. Similarly, if an increase in one variable tends to be associated with a decrease in the other, then this is known as negative correlation (Verma, 2012).

AIM OF STUDY

The aim of the present study was to investigate the relationship of selected physical variables, namely speed and agility, with the raiding performance of male kabaddi players. The study further aimed to determine the extent to which these physical abilities are associated with effective raiding performance among inter-college level kabaddi players.

OBJECTIVES OF THE STUDY

The study was conducted with the following objectives:

1. To assess the speed ability of male inter-college kabaddi players.
2. To assess the agility ability of male inter-college kabaddi players.
3. To evaluate the raiding performance of male kabaddi players under a simulated match situation.
4. To determine the relationship between speed and raiding performance of male kabaddi players.
5. To determine the relationship between agility and raiding performance of male kabaddi players.
6. To identify the importance of selected physical abilities in effective raiding performance in kabaddi.

SIGNIFICANCE OF THE STUDY

Raiding is one of the most important components of performance in kabaddi and requires a combination of physical, technical, tactical, and decision-making abilities. Among the physical attributes, speed and agility may play an important role because a raider is required to approach defenders quickly, change direction, execute attacking movements, and return safely to the own court. Therefore, understanding the relationship between these physical variables and raiding performance may provide useful information for coaches, trainers, physical education professionals, and kabaddi players. The findings of the present study may assist coaches in designing more specific conditioning programmes for raiders by emphasizing the development of speed and agility. The study may also provide a scientific basis for evaluating selected phy sical qualities during player training and selection. Furthermore, the findings can serve as baseline information for future research examining physical and performance-related characteristics of competitive kabaddi players.

MATERIAL AND METHODS

Twenty inter-college level male kabaddi players were selected for this study by purposive sampling technique from Punjabi University, Patiala. The age of the subjects was ranged between 18-25 years. All the subjects had knowledge and training experience in kabaddi.

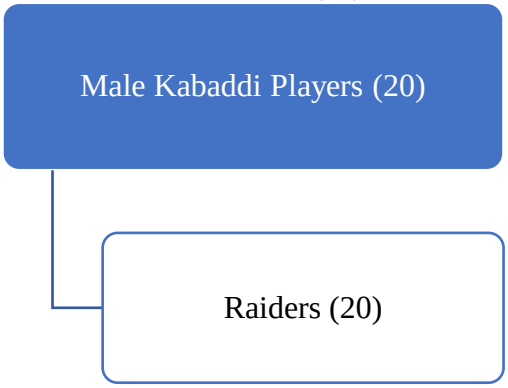

FIGURE-3.1

DESCRIPTION OF SAMPLING PLAN

CRITERION MEASURS

The following were the criterion measures for the study:

TABLE-1

CRITERION MEASURE

S.N.	Variable	Tool	Measuring Unit
1.	Speed	50 Meter Dash	Second
2.	Agility	Shuttle Run	Second
3.	Raiding Performance	Rating Scale	Points

COLLECTION OF DATA

To measure the raiding performance of raiders, instructions were given to raiders. Appropriate time was given to raiders and defenders for general and specific warm-up. Match situation was created and raiders were asked to raid. Three raids were given to every raider and best one was considered. Entire evaluation process was done by kabaddi experts. These experts had participation at national level kabaddi competitions. The researcher explained the purpose of his study and their role in the evaluation process of performance. The researcher showed them rating scale on the basis of which they had to rate the performance of subjects (Table-2).

TABLE--2

EXPLANATION OF RATING SCALE

S.N.	Comment	Score
1.	Very Good	5
2.	Good	4
3.	Average	3
4.	Satisfactory	2
5.	Poor	1

Average of the scores given by three experts was calculated and it was considered as a final performance scores of subjects.

STATISTICAL TECHNIQUE

Descriptive statistics i.e., median, inter-quartile range was calculated. According to the nature of data non-parametric test 'Spearman Rank Correlation' was employed to find out the relationship between selected physical variables and raiding performance in kabaddi. All tests were employed with the help of SPSS-software version 23. Level of significance was set at 0.05 (Zar, 2005).

RESULTS

TABLE-3

THE RELATIONSHIP OF SPEED VARIABLE WITH THE WITH THE PERFORMANCE OF RAIDING

S.N.	Variable	Median	IQR	'r' value	p-value (sig.)
1	Performance Scores	5	2	-	-
2	Speed	7.5	.85	-.807	.000*

Note: IQR= Inter Quartile Range

* Denotes significant relationship at 0.05 level of significance

Table-3 shows the median and inter quartile range values of raiding performance scores and speed variable. Median and inter quartile range values of performance scores and variable are 5(2) and 7.5(.85) respectively. It also shows that there is significant relationship of speed variable (r_s = -.807, p = 0.000) with raiding performance at 0.05 level of significance.

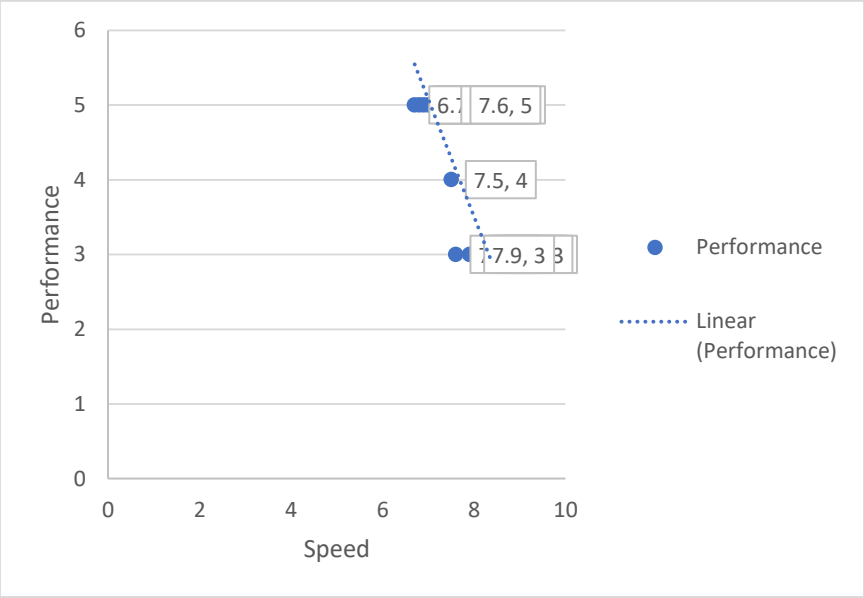

FIGURE-2

GRAPHICAL REPRESENTATION OF CORRELATION OF SPEED AND PERFORMANCE

TABLE-4

RELATIONSHIP OF AGILITY VARIABLE WITH THE PERFORMANCE OF RAIDING

S.N.	Variable	Median	IQR	'r' value	p-value (sig.)
1	Performance Scores	5	2	-	-
2	Agility	11.05	.97	-.504	.023*

Note: IQR= Inter Quartile Range

* Denotes significant relationship at 0.05 level of significance

Table-4 shows the median and inter quartile range values of raiding performance scores and speed variable. Median and inter quartile range values of performance scores and variable are 5(2) and 11.05(.97) respectively. It also shows that there is significant relationship of agility variable (r_s = -.504, p = 0.023) with raiding performance at 0.05 level of significance.

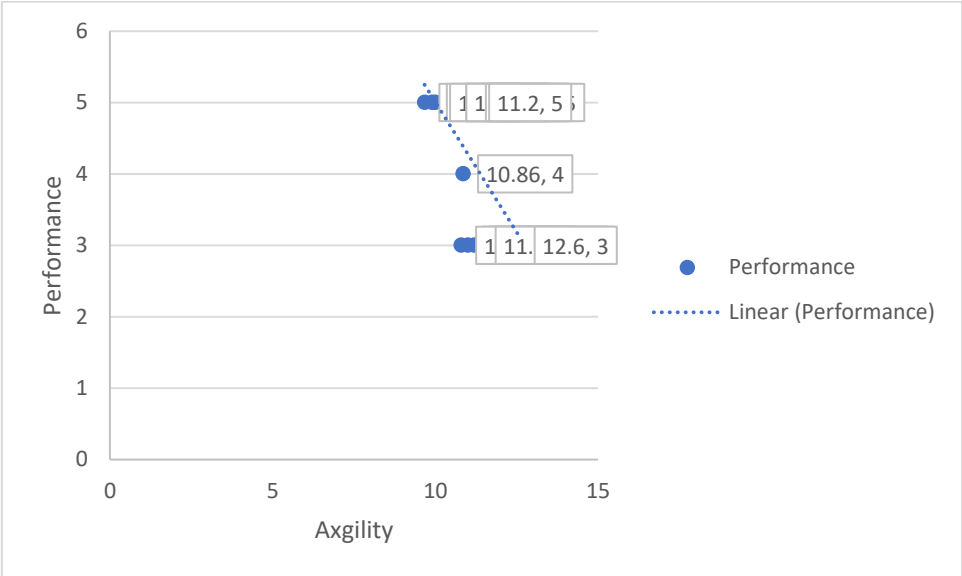

FIGURE-3

GRAPHICAL REPRESENTATION OF CORRELATION OF AGILITY AND PERFORMANCE

DISCUSSION

The purpose of this study was to find out the relationship of selected physical variables with the raiding performance of male kabaddi players (raiders). Two variables: speed and agility were taken in this study.

The results showed that there was significant relationship (r_s = -.807, p = .000) between speed variable and raiding performance. The result of this finding is supported by the study conducted by Devaraju & Needhiraja, (2012) where they found that there was significant correlation between lower extremity explosive strength variable and playing ability of university level kabaddi players.

The results showed that there was significant relationship (r_s = -.504, p = .023) between agility variable and raiding performance. The result of this finding is supported by the study conducted by Pandey & Sardar (2016) where they found that there was significant correlation between lower extremity explosive strength variable and playing ability of university level kabaddi players.

CONCLUSION

The present study concludes that speed and agility are important physical variables influencing the raiding performance of male kabaddi players. The findings revealed a strong and statistically significant relationship between speed and raiding performance, indicating that players who complete sprint tasks in less time tend to perform better during raids. Agility also showed a significant relationship with raiding performance, demonstrating the importance of quick changes in direction, body control, and rapid movement during offensive play. Since successful raiding requires fast approach, escape, turning, and reaction to defenders, improvements in these physical abilities can enhance overall effectiveness. Therefore, systematic training programmes for kabaddi raiders should give special emphasis to developing sprinting speed and agility through appropriate drills and conditioning exercises. The results suggest that coaches and physical education professionals may use these variables while planning training, monitoring performance, and identifying potential raiders for competitive kabaddi at the inter-college level more effectively.

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