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Comparison of leg strength and speed among Kabaddi, Kho-Kho and Volleyball players

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Abstract

The aim of study to compare was Leg Strength and Speed of Players of Kabaddi, Kho-Kho and Volleyball of Gujarat State. In the present study, 72 players of Kabaddi, 72 of Kho-Kho and 72 players of Volleyball participated at state level in Gujarat State were randomly selected of Vadodara, Bharuch and Surat. All selected players were of 13 to 17 years of age. The Leg strength for Standing broad jump Test was measure of Meter/c.m. and Speed for 50 Meter Running / Second Statistical technique such as analysis of variance was applied to know aspects of Leg Strength and Speed of players of Kabaddi, Kho-Kho and volleyball of Gujarat State. Significance was examined at 0.05 levels by applying LSD Post Hoc Test to mean difference. 'F' ratio of strength of legs of male players of Kabaddi, Kho-Kho and volleyball of Gujarat State selected at state level was found 3.199, which followed significance at 0.05 levels. Mean of players of volleyball was found 2.6421, which was the highest among players of all three groups. and 'F' ratio of speed of male players of Kabaddi, Kho-Kho and volleyball of Gujarat State selected at state level was found 0.233, which followed did not follow significance at 0.05 levels. Equality was found in speed of players of all three groups.

Keywords: Comparison, kabaddi, Kho-Kho and volleyball players

Introduction

The term 'sport' is woven in our life in such a way that it seems the concept and thoughts are developed here. But it is not fact. The word 'Lila' was used for sport in Gujarati language in the past. The general meaning of "Lila" is amusement or game. Means, when any one person does any regulated game with group of persons is regarded as sport or game. Here, meaning of sport is not made limited for any one type of sport, but it focuses on all sports played with the help of limbs of body such as Arms, legs etc. Indoor and outdoor sports and games such as Kabaddi, Football, Kho-Kho, Basketball, Hand ball, Volleyball, Table tennis etc are their best examples. Each sport has its unique existence so each sport is specifically connected to human life.

Objective of the Study

Methodology to compare Leg Strength and Speed of Players of Kabaddi, Kho-Kho and Volleyball of Gujarat State,

Total 216 Subject, 72 players of Kabaddi, 72 of Kho-Kho and 72 players of Volleyball participated at state level in Gujarat State were randomly selected of Vadodara, Bharuch and Surat. All selected players were of 13 to 17 years of age.

Table 1: The variable test in measurement

No.	Variable	Test	Measurement
1	Legs strength	Standing broad jump	Meter/c.m.
2	Speed	50 Meter Running	Second

Statistical technique such as analysis of variance was applied to know aspects of Leg Strength and Speed of players of Kabaddi, Kho-Kho and volleyball of Gujarat State. Significance was examined at 0.05 levels by applying LSD Post Hoc Test to mean difference.

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Result of the Study

Table 2: Analysis of variance of legs strength of male players of kabaddi, Kho-Kho and volleyball of Gujarat State

Sport	Mean	Subject	Sum of classes (SS)	df	MD	'F'
Kabaddi	2.4319	72	B	1.702	2	0.851
Kho-Kho	2.4887	72				
Volleyball	2.6421	72	W	56.640	213	0.266

*Significance at 0.05
Tab 'F' = (2,213) = 3.038

It is observed in table – 2 that, mean of strength of legs of male players of Kabaddi, Kho-Kho and volleyball of Gujarat State selected at state level was 2.4319, 2.4887 and 2.6421 respectively. Sum of squares of all groups was found 1.702 and sum of classes between all scores was found 56.640.

Mean deviation of all groups was 0.851, whereas mean deviation of all scores was found 0.266. 'F' ratio was found 3.199, which was found significant at 0.05 levels (2,213) = 3.038. Significant difference among the means calculated by LSD which have been presented in table – 3.

Table 3: Critical ratio between mean of legs strength of male players of kabaddi, Kho-Kho and volleyball of Gujarat state

Group			Mean difference	Critical Difference
Kabaddi	Kho-Kho	Volleyball		
2.4319	2.4887		0.056	0.169
2.4319		2.6421	0.210*	
	2.4887	2.6421	0.153	

* Significance at 0.05 levels.

Mean difference between sports groups is can be seen in table – 2. The above table shows difference between players of Kabaddi, Kho-Kho and volleyball and indicates how much increase is found in groups by comparison to critical ratio.

The highest difference was found between groups of Kabaddi and volleyball (0.210), in which the highest legs strength was found in players of volleyball (2.6421). The findings have been graphically presented in figure1.

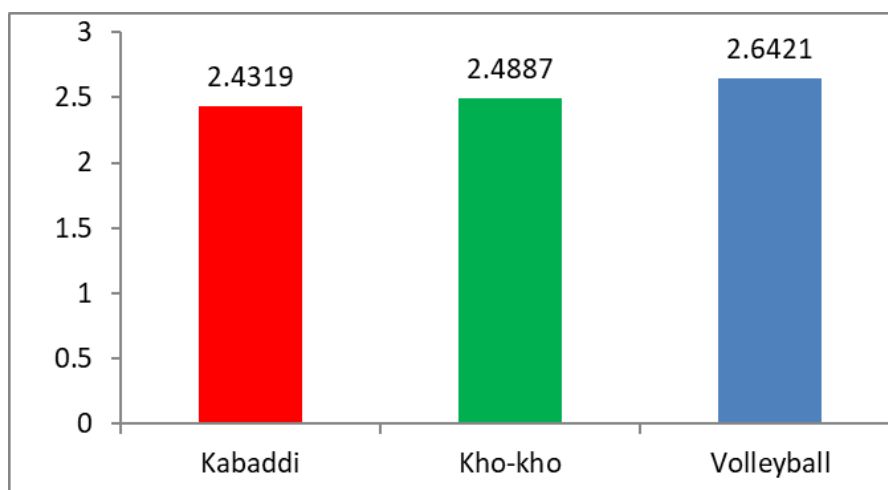


Fig 1: Mean of legs strength of male players of kabaddi, Kho-Kho and volleyball of Gujarat State

Table 4: Analysis of variance of speed of male players of kabaddi, Kho-Kho and volleyball of Gujarat State

Sport	Mean	Subject	Sum of classes (SS)	df	MD	'F'
Kabaddi	8.2424	72	B	0.410	2	0.205
Kho-Kho	8.1543	72				
Volleyball	8.1461	72	W	187.420	213	0.880

*Significance criterion 0.05
Tab 'F' = (2,213) = 3.038

It is observed in table – 4 that mean of speed of male players of Kabaddi, Kho-Kho and volleyball of Gujarat State selected at state level was 8.2424, 8.1543 and 8.1461 respectively. Sum of squares of all groups was found 0.410 and sum of classes between all scores was found 187.420. Mean deviation

of all groups was 0.205, whereas mean deviation of all scores was found 0.880. 'F' ratio was found 0.233, which was not found significant at 0.05 levels (2,213) = 3.038. Mean of all three groups are mentioned in figure 2

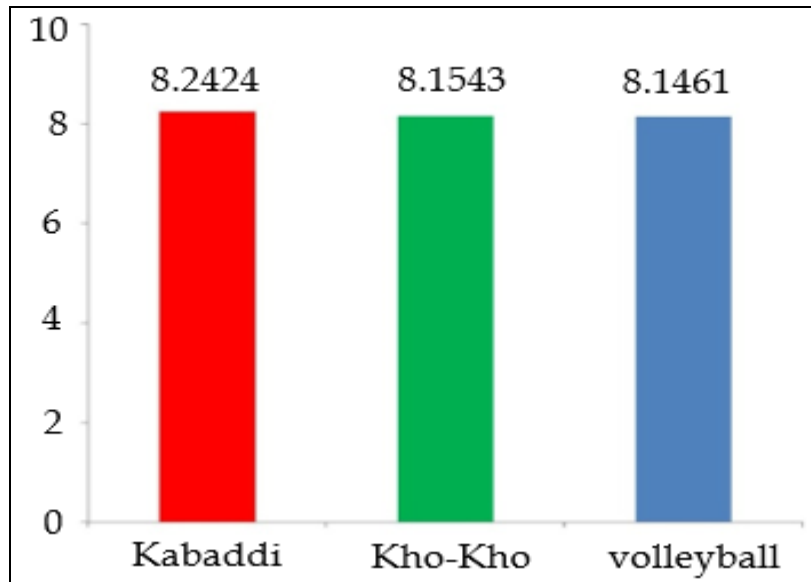


Fig 2: Mean of speed of male players of Kabaddi, Kho-Kho and Volleyball of Gujarat State

Conclusion

- The highest legs strength was found Volleyball players. The reason was that the players of volleyball have to take more jumps, so they take jump skill practice such as smashing, blocking, and jump service etc. such skills are desirable among players participated at state level. Increase in strength of legs is expiated by regular practices. It is concluded that more of legs strength was found in players of volleyball than those of other two sports.
- Analysis of data indicates that 'F' ratio of speed of male players of Kabaddi, Kho-Kho and volleyball of Gujarat State selected at state level was found 0.233, which was in significant at 0.05 levels. Equality was found in speed of players of all three groups. Players of volleyball were found having less time because of their height and length of legs, where as players of Kabaddi were found having more time because of their heavy weight.

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