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**ANALYSIS OF KINESTHETIC PERCEPTION AND INTELLIGENCE AMONG  
KABADDI AND KHO-KHO PLAYERS**



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**ABSTRACT**

The objective of the study was to analyze the kinesthetic perception and intelligence among Kabaddi and Kho-kho players. To achieve the objective of the study the investigator selected 80 students consisting of 40 men and 40 women. Out of which 40 men and 40 women, 20 subjects were Kabaddi and 20 subjects were kho-kho for both gender randomly selected who participated in National style Kabaddi and Kho-Kho competitions in Sirsa, Haryana. The selected subjects' age groups were ranging from 18 to 25 years. To measure the kinesthetic perception, kinesthetic obstacle test was used. Intelligence was measured by Standard Progressive Matrices by J. C. Raven Questionnaire. The collected data were subjected to statistical treatment to find out any differences between the groups in the dependent variables selected using two-way ANOVA. Statistical package of social sciences (SPSS) were used to analyze the data in the computer. The level of significance was fixed as 0.05. The results of the study proved that there was no significant difference between men and women Kabaddi and kho-kho players on kinesthetic perception.

**Keywords:** Kinesthetic Perception, Intelligence Test, Kabaddi & Kho-kho Players.

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**INTRODUCTION**

Applied sport and exercise psychology consists of instructing athletes, coaches, teams, exercisers, parents, fitness professionals, groups, and other performers on the psychological aspects of their sport or activity. The social-psychological approach focuses on the social environment and the individual's personality, and on how complex interactions between the two influence behavior. The psycho-physiological approach focuses on the processes of the brain and their influence on physical activity, and the cognitive-behavioral approach analyzes the ways in which individual thoughts determine behavior. Generally, there are two different types of sport psychologists: educational and clinical.

**Sports psychology** is the study of how psychology influences sports, athletic performance, exercise, and physical activity. Some sports psychologists work with professional athletes and coaches to improve performance and increase motivation. Other professionals utilize exercise and sports to enhance people's lives and well-being throughout the entire lifespan.

Intelligence is defined as general cognitive problem-solving skills. A mental ability involved in reasoning, perceiving relationships and analogies, calculating, learning quickly... etc. Earlier it was believed that there was one underlying general factor at the intelligence base (the g-factor), but later psychologists maintained that it is more complicated and could not be determined by such a simplistic method. Some psychologists have divided intelligence into subcategories. For example Howard Gardner maintained that it is comprised of seven components: musical, bodily-kinesthetic, logical-mathematical, linguistic, spatial, interpersonal, and intrapersonal. Other definitions are: "Intelligence is what you do when you don't know what to do." "Intelligence is a hypothetical idea which we have defined as being reflected by certain types of behavior." Kinesthetic Perception: Kinesthetic perception is the ability to perceive distance in a jump, ability to perceive distance in pushing and ability to predict position during movement, Berger, M. R. (1972).

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**Intelligence:** Intelligence is defined as general cognitive problem-solving skills. A mental ability involved in reasoning, perceiving relationships and analogies, calculating, learning quickly... etc. Earlier it was believed that there was one underlying general factor at the intelligence base (the g-factor), but later psychologists maintained that it is more complicated and could not be determined by such a simplistic method, Sternberg, R. J. (1980).

**OBJECTIVE**

The main objective of the study was to analyze the kinesthetic perception and intelligence among Kabaddi and Kho-kho players.

**DESIGN OF THE STUDY**

The purpose of the present study was to analyze of kinesthetic perception and intelligence among Kabaddi and Kho-kho players as a function of gender. To achieve the purpose of the study the investigator selected 80 students consisting of 40 men and 40 women. Out of which 40 men and 40 women, 20 subjects were Kabaddi and 20 subjects were Kho-kho for both gender randomly selected who participated in National style Kabaddi and Kho-kho competitions in Sirsa, Haryana. The selected subjects' age groups were ranging from 18 to 25 years.

**STATISTICAL ANALYSIS AND INTERPRETATIONS OF THE DATA:**

**Table No: I**

**Table showing the Psychological Variables**

Sr. No.	Variables	Test
1	<b>Kinesthetic Perception</b>	Kinesthetic Obstacle Test
2	<b>Intelligence</b>	Standard Progressive Matrices by J. C. Raven Questionnaire

To analyze of kinesthetic perception and intelligence test among the Kabaddi and Kho-kho players as a function of gender, two-way ANOVA was used to test for the

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difference. Statistical package of social sciences (SPSS) were used to analyze the data in the computer. The level of significance was fixed as 0.05.

**Table No: II**

**Table showing descriptive Statistics, Number of Subjects, Mean and Standard Deviation on selected Psychological variables of Players**

Sr. No.	Variables	Subjects	Mean	Standard Deviation
<b>Men Kabaddi Players</b>				
1	Kinesthetic Perception	20	58	14.36
2	Intelligence	20	42.9	7.24
<b>Men Kho-kho Players</b>				
1	Kinesthetic Perception	20	57.5	12.08
2	Intelligence	20	42.4	8.34
<b>Women Kabaddi Players</b>				
1	Kinesthetic Perception	20	62	9.51
2	Intelligence	20	42	6.54
<b>Women Kho-kho Players</b>				
1	Kinesthetic Perception	20	63.5	9.88
2	Intelligence	20	37.9	6.7

**Results on Two way ANOVA**

The obtained two way ANOVA between criterion variables and psychological variables of the men and women players are presented in table III.

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Table No: III  
 Table showing Two Way Factorial ANOVA on Kinesthetic Perception

Source	Sum of square	Df	Mean Square	F
Factor A men and women(rows)	500.00	1	500.00	3.7
Factor B Kabaddi and Kho-kho (columns)	5.00	1	5.00	0.037
Interaction(AXB)	20.00	1	20.00	0.148
Error	10270.00	76		

Not significant, Table value required for significant at 0.05 level with df 1 and 76 is 3.96

From table III they obtained F ratio between men and women is 3.7, the obtained 'F' ratio on kinesthetic perception for men and women Kho-kho Player is 0.037, the obtained F ratio value of interaction (AXB) is 0.148 which are lesser than the table values with df 1 and 76 required for significant at 0.05 level of confidence. The results of the study indicates no significant difference between the groups on kinesthetic.

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Table No: IV

Table showing Two Way Factorial ANOVA on Intelligence

Source	Sum of square	Df	Mean Square	F
Factor A men and women(rows)	259.20	1	259.20	4.908*
Factor B Kabaddi and Kho-kho (columns)	39.20	1	39.20	0.74
Interaction(AXB)	16.20	1	16.20	0.307
Error	10270	79	1350.13	

\*Significance at 0.05 level

Table value required for significant at 0.05 level with df 1 and 76 is 3.96

From table IV they obtained F ratio values between men and women was 4.908 which is higher than the table value of 3.96 with df 1 and 76 required for significant at 0.05 level of confidence. The result of the study indicates there was a significant difference between men and women on intelligence.

Table IV also shows that the obtained 'F' ratio values on intelligence for men and women Kabaddi and Kho-kho was 0.742 and obtained F ratio value of interaction (AXB) was 0.307 which are lesser than the table value of 3.96 with df 1 and 76 required for significant at 0.05 level of confidence. The result of the study indicates that there was no significant difference between the groups on intelligence.

**CONCLUSIONS**

After statistical analysis the following conclusions were drawn:-

- It was concluded that there was no significant difference exists between Kabaddi men and Kho-kho women on kinesthetic perception.
- It was concluded that there was no significant difference exists between Kabaddi men and Kabaddi women on kinesthetic perception.



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- It was concluded that there was no significant difference exists between Kabaddi men and Kho-kho men on kinesthetic perception.
- It was concluded that there was no significant difference exists between Kabaddi men and Kho-kho women on kinesthetic perception.
- It was concluded that there was a significant difference exists between men and women players on intelligence.
- It was concluded that there was no significant differences exists between Kabaddi and Kho-kho players on intelligence.

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