



COMPARISON OF BALANCE, LEG STRENGTH AND LOWER BODY FLEXIBILITY BETWEEN KHO-KHO AND KABADDI PLAYERS

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Abstract

The purpose of the study was to compare the balance, leg strength and lower body flexibility, between Kho-Kho and Kabaddi players. To achieve the purpose of the study 24 (12 kho-kho and 12 kabaddi) male players were selected as participants from the Schaffter Higher Secondary School, Tirunelveli, Tamilnadu, India. The selected participant's age were ranged from 14 to 16 years. Balance, leg strength and lower body flexibility were selected as dependent variables for this study and they were tested by stork balance, standing broad jump, and sit & reach tests. The collected data was statistically analyzed by independent 't' test and it was tested by 0.05 level of confidence to find the significant difference between the selected groups. The result shown that, there was a significant difference exists on balance, leg strength and lower body flexibility between Kho-Kho and Kabaddi players.

Keywords: Balance, Leg Strength, Lower Body Flexibility, Kho-Kho Players, Kabaddi Players

INTRODUCTION

Children with high levels of fundamental movement skill competency are more active throughout the day (Kristen E Cohen, 2014) [1]. Most sports skills are demand speed of execution. Running is fundamental for all sports activity and it is mostly lower body-dominant activity. For athletic performance lower body play a vital role for instance rapid accelerate, jumping high and also for endurance. Balance is generally defined as the ability to maintain the body's center of gravity within its base of support and can be categorized as either static or dynamic balance. Static balance is the ability to sustain the body in static equilibrium or within its base of support (Goldie et al., 1989; Olmsted et al., 2002) [2]. Dynamic balance is supported to be more challenging because it requires the ability to maintain equilibrium during a transition from a dynamic to a static state (Ross and Guskiewicz, 2004) [3]. Both static and dynamic balance require integration of visual, vestibular, and proprioceptive inputs to produce an efferent response to control the body within its base of support (Irrgang et al., 1994 [4]; Guskiewicz and Perrin, 1996) [5].

Proprioception is the reception of stimuli produced within organism, whereas balance is physical equilibrium maintain by one's body. This means that proprioception is a neurologic process, while balance is the ability to remain in an upright position for long period. Balance exercises aimed at improving proprioception and brain training help to recognize the body's segment position for every moment. Therefore, a balance exercise program will train and facilitate proprioception pathways under competitive circumstances effectively. Flexibility is one among the importance component of physical fitness. "Flexibility is

the ability to move muscles and joints through their full range of motion." (Alter, M.J., 1998) [6]. Flexibility can be both static and dynamic. Static flexibility is range of movement achieved without movement; dynamic flexibility is range of movement achieved with movement. Flexibility will reduces stress in the exercising muscles and releases tension developed during sports activity. It also assists with posture by balancing the tension placed across the joint by the muscles that cross it. Also reduces the risk of injury during exercise because muscles are more pliable.

PURPOSE OF THE STUDY

The purpose of the study was to compare the balance, leg strength and lower body flexibility between Kho-kho and Kabaddi players.

METHODOLOGY

To achieve this purpose of the study 24 male Kho-Kho (n=12) and Kabaddi (n=12) players were selected as participants from the Schaffter Higher secondary school, Tirunelveli, Tamilnadu, India. The age of the participants were ranged from 14 to 16 years. Balance, leg strength and lower body flexibility were selected as variables for this study and they were tested by stork balance, isometric leg strength, and sit & reach tests. The collected data were statistically analyzed by independent 't' test and it was tested by 0.05 level of confidence to find the significant differences between Kho-Kho and Kabaddi players.

ANALYSIS OF THE DATA

The selected variables were compared between Kho-kho and Kabaddi players and presented in the below table.

TABLE I
THE MEAN AND STANDARD DEVIATION SCORES OF INDEPENDENT 'T' TEST ON SELECTED VARIABLES BETWEEN KHO-KHO AND KABADDI PLAYERS

Variables	Kho-Kho		Kabaddi		T- test
	Mean	SD	Mean	SD	
Balance	40.50	3.75	37.01	3.59	1.00
Leg Strength	64.75	24.79	43.33	20.16	2.36
Lower body Flexibility	27.08	7.37	25.25	4.22	0.75

*Significant at .05 level. Table values required for at 0.05 level of significance with df 22 is 2.07

The above table shows the mean values on balance between Kho-Kho and Kabaddi players are 40.50 and 37.01. The obtain t-ratio is 1.0 which is lesser than the table value 2.07 with df 22 at 0.05 level significant. It is understood that there was no significant difference exist between Kho-Kho and Kabaddi players on balance. The mean values on lower body flexibility between Kho-Kho and Kabaddi players are 27.08 and 25.25. The obtain t-ratio is 0.75 which is lesser than the table value 2.07 with df 22 at 0.05 level significant. It is

understood that there was no significant difference exist between Kho-Kho and Kabaddi players on lower body flexibility.

The mean values on leg strength between Kho-Kho and Kabaddi players are 64.75 and 43.33. The obtain t-ratio is 2.36 which is greater than the table value 2.10 with df 20 at 0.05 level significant. It is understood that there was a significant difference exist between Kho-Kho and Kabaddi players on leg strength and kho-Kho players are excel than the Kabaddi players.

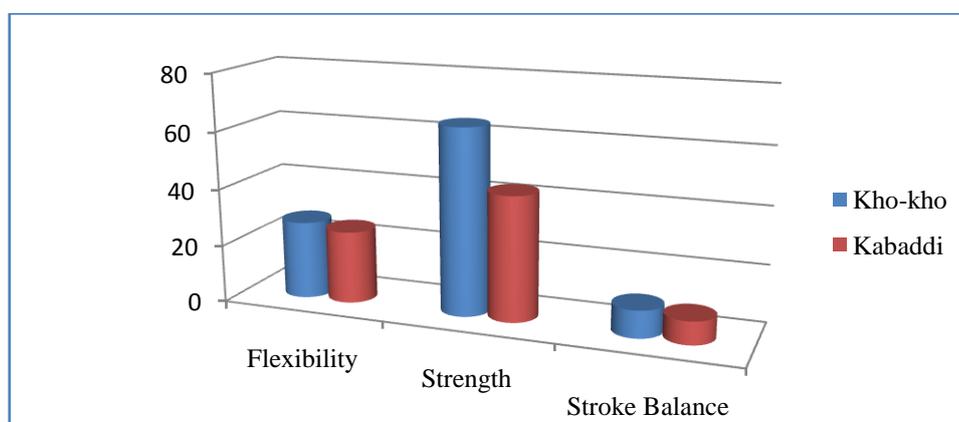


FIGURE I
MEAN VALUES OF BALANCE, LEG STRENGTH AND LOWER BODY FLEXIBILITY BETWEEN KHO-KHO AND KABADDI PLAYERS

DISCUSSION ON FINDINGS

The result of the study indicated that, there was a significant difference on leg strength between Kho-Kho and Kabaddi players. This result is same as the many of the following research findings. Ghosh and Surajit (2013) [8] compared 60 women players (Kho-Kho = 30 and Kabaddi = 30) on physical, psychological and anthropometric variables. The following anthropometric variables - Height, Weight, Body Mass Index (BMI) and Percent Body Fat and following Physical fitness variables - Speed, Explosive Leg Strength,

Cardiorespiratory Endurance, Agility and Flexibility and the following Psychological variables - Self confidence, Dominance, Introversion, Neuroticism and Sociability were selected for the study. They concluded that Height, Weight, BMI and % body fat of the Kabbadi players were significantly higher than the Kho-Kho players. Speed, Explosive Leg Strength, Cardio-respiratory Endurance and Agility of the Kho-Kho players were significantly higher than the Kabbadi players. there is no major disparity in Flexibility between the Kho-Kho and Kabbadi players. In Self Confidence and Dominance

Kabbadi players had significantly higher value than the Kho-Kho players . There is no significant differences were found in Introversion, Neuroticism and Sociability between the Kho-Kho and Kabbadi players.

CONCLUSION

From the result of the study the following conclusions were drawn,

1. There was a significant difference exist between Kho-Kho and Kabaddi players on leg strength.
2. There was no significant differences exist between Kho-Kho and Kabaddi players on balance and lower body flexibility.
3. Kho-Kho players were better on leg strength when compare than the Kabaddi players.

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