A COMPARATIVE STUDY OF SPEED AND AGILITY OF KABBADI AND KHO-KHO PLAYERS

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ABSTRACT:

The objective of the study was to analyses speed and agility of kabbadi and kho-kho players from Gwalior. Age range of all players between 18 to 23 years. all players participated at state level competition. Selection of subjects For this study fifteen Kho-kho and fifteen Kabaddis male players were selected randomly. The average age of subjects is between 18 to 23years.

Selection of the Variables Since the purpose of the study was to compare the Selected Motor Fitness Components between Kho-kho and Kabaddi players, therefore the following variables have been selected after consulting experts and referring to various literatures like Speed and Agility. The research scholar reviewed the available scientific literatures pertaining to the study from the books, journals, periodicals, magazines and research papers .Taking into consideration of the feasibility criteria, availability of instruments and relevance of the variable to the present topic. In this study researcher selected some exercise to follow the Basic Sprints, like Up Hill Sprints, Down Hill Sprints, and Hollow Sprints as independent variable and researcher see the effect on (speed & agility) dependent variable, Collection of data The data was collected for each variable administrating their respective tests. Total thirty(30) male subjects from kabaddi and kho-kho were selected as for study who had participate in State level kabaddi and kho-kho players from Gwalior (M.P.).To ensure that data collected was reliable, each subject was give sufficient number of trails to perform the respective tests each variable.The data was collected by 50 meter dash and shuttle run. After that collected data was put in Microsoft Excel to develop the master chart and then 't' test was used for this statistical treatment. Statistical Technique In order to determine the comparison of speed and agility between kabaddi and kho-kho players independent 't' test was employed and the level of significance was set at '0.05.

KEYWORDS : *Kabaddi players and kho-kho players , Basic Sprints , statistical treatment .*

INTRODUCTION

In the history of humankind, physical fitness has been considered as a vital element of everyday life of an individual. In being so, the ancient people were mainly dependent upon their individual strength, vigor and vitality for physical survival (Manmeet Gill, et al, .2010). These involved performances of some basic skills like strength, speed, endurance, flexibility, agility for running, jumping, throwing and climbing for the persistence of hunting, gathering food and building shelter for their living (Mehtap Ozdirenc, Nihal Gelecek, 2005).In connection to the idea stated above, international journal of behavioral social and movement science (IJBSMS, 2012) define the concepts of physical fitness as old as mankind, keeping in mind the survival of the fittest, down through the ages, as only strong and agile invader, protect themselves and their property. It is a fact that physically fit people are in a better position to bear the rigorous and abnormal stress and strain, than those who are less

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physically fit. The basic movement like running, throwing, climbing, jumping lifting etc. requires specific physical attributes such as muscular strength, muscular endurance, cardiovascular endurance, strength, balance and coordination (W.H.O, 1981).In the light of this, the expertise committee of the world Organization (1981) describes physical fitness as the ability to undertake muscular work satisfactorily and in capacity to carry out various forms of physical activities without being unduly tired including qualities important to the individual health and well-being. According to Clarke, Harrison, H (1971) physical fitness is defined as ability to carry out daily tasks with vigor and alertness without undid fatigue with ample energy leisure time pursuits to meet usual situations and unforeseen emergencies. Likewise, regular participation in various exercises increases physical fitness. As a result, a high level of physical fitness is desirable for a full productive life. However, sedentary living habits and poor physical fitness have negative impacts on both health and daily living. Every person has a different level of physical fitness which may change with time, place of work and situation. There is also an interaction between the daily activities and the fitness of an individual, the point of where to put the level of optimum fitness. From a physiological point of view, physical fitness may be the ability of the body to adapt and recover from strenuous exercise (Kamla-Raj, 2010)For most individuals, increase in physical activity increases physical fitness. Hence, physical activity and physical fitness are closely related in that physical fitness is mainly not entirely determined by physical activity patterns over recent weeks or months. That's why; genetic contributions to fitness are important but probably account for less of the variation observed in fitness than is due to environmental factors, particularly physical activity

METHODOLOGY

In this chapter, the procedure that was adopted for conducting the research study, selection of subjects, selection of variables, criterion measures, administration of test, collection of data and statistical techniques are describe.

SELECTION OF SUBJECTS

For this study fifteen Kho-kho and fifteen Kabaddis male players were selected randomly. The average age of subjects is between 18 to 23years.

SELECTION OF THE VARIABLES

Since the purpose of the study was to compare the Selected Motor Fitness Components between Kho-kho and Kabaddi players, therefore the following variables have been selected after consulting experts and referring to various literatures like Speed and Agility. The research scholar reviewed the available scientific literatures pertaining to the study from the books, journals, periodicals, magazines and research papers .Taking into consideration of the feasibility criteria, availability of instruments and relevance of the variable to the present topic.

SELECTION OF THE VARIABLES

TABLE.1

Dependent variables	Independent variables
Speed	Basic Sprints Up Hill Sprints Down Hill Sprints
Agility	Hollow Sprints

DESCRIPTION OF EXERCISES

Basic Sprints Set 2 cones out 10-20 meters apart. Sprint from one cone to the next and slowly jog back to the start. Vary the start of the sprint to make the drill more sport specific. For example. Face backwards, lie down, jump up, pretend to receive a pass, jump to head a ball etc.

Up Hill Sprints In competition the first few strides are crucial. Running up a slight hill (about 30 degrees) helps to develop power and acceleration. Keep the distances short (10-15 meters) and allow extra rest between sets an alternative to uphill running is a and reps. resistance parachute.

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Resistance chutes are one of the most popular and effective training aids for sprinters. If it's adjustable it can be used to develop power for sprint trainers or even long-distance runners.

Down Hill Sprints (Over speed training) Downhill speed and agility drills help to develop leg speed and co-ordination. This is sometimes referred to as over-speed training. Keep the distance short (10-15 meters) and make sure the hill is only slight. An alternative method of over-speed training is to use elastic cords. An Over-Speed Trainer consists of a pulley system to provide a smooth build up of speed. It enables the sprinter to move at a rate greater than 100% of their usual top speed. It can also be used to provide resistance much like uphill sprints.

Hollow Sprints Set 5 cones out in 30 meters intervals. Sprint 30 meters, jog 30 meters, sprint 30 meters and jog 30 meters to the final cone. Walk back to the start and repeat.

CRITERION MEASURES FOR TESTING THE HYPOTHESIS WERE FOLLOWING.
TABLE.2

SNO.	VARIABLES	TEST	MEASURES
1.	Speed	50 m. dash	(seconds/minutes)
2.	Agility	shuttle run	(seconds/minutes)

Collection of data

The data was collected for each variable administrating their respective tests. Total thirty(30) male subjects from kabaddi and kho-kho were selected as for study who had participate in State level kabaddi and kho-kho players from Gwalior (M.P.).To ensure that data collected was reliable, each subject was give sufficient number of trails to perform the respective tests each variable. The data was collected by 50 meter dash and shuttle run. After that collected data was put in Microsoft Excel to develop the master chart and then 't' test was used for this statistical treatment.

ANALYSIS OF DATA

The collected score of each selected variable ability of kabaddi and kho-kho players was analyzed by using independent t –test to find out the equality of between group means at 0.05 level of significance.

TABLE 3
DESCRIPTIVE STATISTICS OF KABADDI AND KHO-KHO PLAYER IN CASE OF SPEED

KABBDI KHO KHO		N	Mean	Std. Deviation	Std. Error Mean
SPEED	1. KABBADI	30	6.9667	.76489	.13965
	2. KHO KHO	30	6.8000	.76112	.13896

Table4.3 indicates the minimum, maximum, mean and standard deviation of speed of Gwalior district kabbadi and kho-kho players. For the kabbadi players mean was 6.96 standard deviation was .764 and Std. Error Mean .136. For the kho-kho players mean was 6.80. standard deviation was .761 and Std. Error Mean .138. This table indicates that the mean values of kho kho players was better than the kabbadi players.

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TABLE 4
COMPARATIVE STATISTICS OF SELECTED GROUPS IN CASE OF SPEED

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
SPEED	Equal variances assumed	.275	.602	.846	58	.401	.16667	.19701	-.22769	.56102

Test, the mean of the kabaddi Group and kho-kho Group is 6.9667 and 6.8000 respectively, whereas the difference in the mean of both groups is .16667 which is in favor of kabaddi group whereas the 't' value of the same is 0.846 Which is insignificant at 0.05 levels.

TABLE 5
DESCRIPTIVE STATISTICS OF KABADDI AND KHO-KHO PLAYER IN CASE OF AGILITY

KABBDI KHO KHO		N	Mean	Std. Deviation	Std. Error Mean
AGILITY	1.KABBAD	30	11.5520	.62282	.11371
	2. KHO-KHO	30	11.9647	.70577	.12886

Table indicates the minimum, maximum, mean and standard deviation of speed of Gwalior district kabbadi and kho-kho players. For the kabbadi players mean was 11.55 standard deviation was .6228 and Std. Error Mean .113. For the kho-kho players mean was 11.96. standard deviation was .70 and Std. Error Mean .12. This table indicates that the mean values of kho kho players was better than the kabbadi players.

TABLE 6
COMPARATIVE STATISTICS OF SELECTED GROUPS IN CASE OF AGILITY

		Leve's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	df	Sig. (2tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
AGILITY	Equal variances assumed	.036	.850	-2.401	58	.020	-.41267	.17185	-.75667	-.06866

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Shuttle Run Test, the mean of the kabaddi ball Group and kho-kho Group is 11.5520 and 11.9647 respectively, whereas the difference in the mean of both groups is 0. 41267 which is in favor of kho kho group whereas the 't' value of the same is 0.223 Which is insignificant at 0.05 levels.

DISCUSSION OF FINDINGS

From the above analysis and interpretation of the data, the findings may be drawn that there was no significant difference in the motor fitness components of kho-kho and kabaddi players.

In case of speed the result revealed that there was no significant difference between kabaddi and kho-kho players.

In case of agility the result revealed that there was no significant difference between kabaddi and kho-kho players.

CONCLUSION

On the basis of finding and within the limitation of the presents study it was concluded that there was no significant difference of speed and agility between kabaddi players and kho-kho players

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