# A COMPARATIVE STUDY OF ANTHROPOMETRICAL VARIABLES BETWEEN FEMALE KABADDI AND KHO KHO PLAYERS OF UTTAR PRADESH

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#### Abstract

Purpose of study was to compare anthropometrical variable between kabaddi and kho-kho players. For the purpose of this study 50 Female Kabaddi and kho-kho players were selected as the subject from uttar pradesh. Age of the subjects was ranged between 18 to 23 years. Selected anthropometric variables were measured by standardized anthropometric equipments. To compare anthropometric independent t test was applied at 0.05 level of significance. The finding of the study reveals that there are significant difference in kabaddi and kho-kho players in relation to leg length, arm length, height and weight. It was concluded that UP state female kabaddi players were greater in leg length, arm length, height and weight in comparison to female khokho players.

**Keywords**: Anthropometric, Chasing, Holding and Touching.

### Introduction

Kabaddi is basically an outdoor team game, played in the tropical countries of Asia. The excitement and thrill provided by the game has made it very popular and Kabaddi is rightly called the 'Game of the masses', since spectators totally involve themselves and give the players a great deal of encouragement. The game requires no equipment whatsoever, and the rules of the game are very easy to comprehend. This is the reason for the popularity of the game in rural areas, since rural youth in India can ill-afford the sophisticated equipment demanded by other sports. Kho-Kho ranks as one of the most popular traditional sports in India. The origin of Kho-Kho is difficult to trace, but many historians believe, that it is a modified form of 'Run Chase', which in its simplest form involves chasing and touching a person. With its origins in Maharashtra, Kho-Kho in ancient times, was played on 'raths' or chariots, and was known as Rathera.Like all Indian games, it is simple, inexpensive and enjoyable. It does, however, demand physical fitness, strength, speed and stamina, and a certain amount of ability. Dodging, feinting and bursts of controlled speed make this game quite thrilling. To catch by pursuit - to chase, rather than just run - is the capstone of Kho-Kho.The game develops qualities such as obedience, discipline, sportsmanship, and loyalty between team members. Today all over the world physical Educators and Coaches are facing their greatest challenge in handling problems in scientific way i.e. to give their sportsmen proper and progressive guide-lines based on scientific approach

which leads to desired results. Since, both physical and physiological have been recognized as one of the best means of underlying sportsman's performance and of helping in producing better performance. The physical educators, coaches and sportsmen an understanding of physical character and the physiology of exercise to becoming increasingly important, when everyone's understanding grows the trial error methods and application of guessing becomes less than adequate in preparing high level sportsman for competition. The game demands agility, muscular coordination, breath holding capacity, quick responses and a great deal of presence of mind. Kabaddi and kho kho was probably invented to develop defensive responses by an individual against group attacks and a group's responses to an individual attack. Kho Kho and Kabaddi believes in the maxim of a strong mind in a strong body. These inexpensive game should be given the maximum encouragement since it is well suited for developing countries to realize the underlying spirit of sports, which is health for all. Performance in any sports activity depends to a large extent on physical fitness. Sports trainers concentrate on improving the physical fitness and motor abilities of a player, i.e., speed, strength, endurance, flexibility. Improving the physical fitness of a player is also called conditioning. A sound conditioning programme forms the most important part of training any sports person. Conditioning or physical fitness is categorized into general and specific fitness. General fitness refers to the common qualities required for any sports person irrespective of the sport i.e., motor qualities such as strength, endurance, flexibility and coordination ability. Every sport demands motor abilities at various levels above the average. Specific fitness is achieved when a player acquires the required motor ability at the intensified level for the particular sport. For example, specific fitness in kabaddi is with reference to strength, speed and co-ordination. A player must be physiologically & psychologically fit to make a good sports person. Physical fitness training will enable the .player withstand the stress and strain of a competitive sport without adversely affecting him physiologically or psychologically. It is only with specific fitness that a player can perform the unusual movements which an average person [nonsports person] may not in the normal every day course, require to perform. However, the basis of specific fitness lies in general fitness and the player has to improve both the categories of fitness to succeed.

#### Methodology

#### Selection of Subjects

For the purpose of this study 50 Female kabaddi and 50 Female kho-kho players were selected as subject from Uttar Pradesh. Age of the subjects was ranged between 18 to 23 years.

Selection of Variables

On the basis of available literature and researcher own understanding following anthropometric variable were select. Leg length

Arm length Height Weight

TABLE NO 1 CRITERION MEASURES

S. NO.	Variable	Criterion Measure	Unit
1.	Leg Length	Steel Tape	Near to 1cm
2.	Arm Length	Steel Tape	Near to 1cm
3.	Height	Stadio Meter	Near to 1cm
4.	Weight	Weighing Machine	Near to .1kg

## **Statistical Procedure**

Descriptive statistics will be used to find out the status of kabaddi and kho kho players in relation to anthropometric variables. To find out the significant difference independent 't test' was employed at 0.05 level of significance.

TABLE NO 2
COMPARISON OF LEG LENGTH BETWEEN KABADDI AND
KHO-KHO PLAYERS

	Group	Mean	SD	t- Ratio
Leg Length	Kabaddi	99.22	4.89	12.03
	Kho-Kho	88.40	4.05	
Arm Length	Kabaddi	75.78	3.33	7.86
	Kho-Kho	68.68	5.44	
Height	Kabaddi	166.62	5.21	8.22
	Kho-Kho	159.12	4.07	
Weight	Kabaddi	69.68	5.99	7.54
	Kho-Kho	62.09	3.81	

<sup>\*</sup>Significant at 0.05 level t (0.05) (98) = 1.98

Table- 1 reveals that the calculated value of t (12.03) was higher than tabulated value of (1.98). so we can say that female kabaddi players were significantly different from female kho kho players. Table- 1 reveals that the calculated value of t (7.86) was higher than tabulated value of (1.98). so we can say thatfemale kabaddi players were significantly different fromfemale kho kho players. Table- 1 reveals that the calculated value of t (8.22) was higher than tabulated value of (1.98). so we can say that female kabaddi players were significantly different from female kho kho players. Table- 1 reveals that the calculated value of t (7.74) was higher than tabulated value of (1.98). so we can say that female kabaddi players were significantly different from female kho kho players

#### **Discussion of Findings**

From the finding of this study it has been observed that there was significant difference between female kabaddi and female kho kho players in relation to anthropometric variables. The kabaddi players were found greater in leg length, arm length, height and body weight. Kabaddi is type of body contact game and training method is entirely different , more weight training pulling and pushing exercise and jumping exercises are very common . where kho kho need agility based and speed endurance based training programme. Nature and demand of body physique is totally different in comparison to kho kho players. That is the reason of difference.

#### Conclusion

In this light of the findings, it was concluded that UP state female kabaddi player were greater in all anthropometric variables, leg length, arm length height, and body weight in relation to female kho kho payers of UP state.

#### Reference:

Harold Wilson Pearcy, (1973). "Correlated of Leg Power measured by Jump and Reach and Dekan Timer Test, Leg Strength, Leg Speed and Certain Anthropometric Measurements," Completed Research in Health Education and Recreation 15.

James A. Germer, (1987). "The Effect of Weight Training and Polymetric Framing on Vertical jump. Standing Broad Jump and 40 Meters Sprint", Dissertation Abstracts International 47:8.

James R. Marrow et al., (1979). "The Importance of Strength, Speed and Body Size for Team Success in Women's Intercollegiate Volleyball", Research Quarterly 50.

Carolyn Nicholson, (1964). "A Study to Determine the Relationship of Selected Anthropometric Measurement to Leg Strength", Completed Research in Health Education and Recreation 6.

Clark H. Best and N.B Taylor, (1972). The Body (London Champion and Hall Limited).

Crang D. Spirduso, (1973). "Relationship Between Strength and Speed Affected by Limb Length" Completed Research in Health, Physical Education and Recreation 15.

Ellena Jack Duana, (1960). "Relationship of Physical Factors to Football Performance," Completed Research in Health, Physical Education and Recreation 2, 26.

Gary J. Berg, (1969). "Relationship Between Selected Body Measurements and Success in the Standing Broad Jump", Completed Research in Health Education and Recreation 11. H. Wells and F. Russell, (1963). "The Relationship of the Leg Strength, Body Weight, Rational Length of the Lower Limb segments of the Vertical Jump." Completed Research in Health Education and Recreation 5.

Norton Kevin et al., (2006). "A text book of Body measurement for Sports and Health Education, Anthropometrica CBS Publisher.