



## Correlations of Kabaddi Playing Ability with Selected Anthropometrical Variables among College Level Players

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### Abstract

*The purpose of the study was to find out the Kabaddi playing ability with selected Anthropometrical variables among College level Players. One hundred and twenty six male inter collegiate Kabaddi players were randomly selected from various colleges in Tamilnadu state, India and their age ranged between 18 and 28 years. The subjects had past playing experience of at least three years in Kabaddi and only those who represented their respective college teams were taken as subjects. A series of anthropometrical measurements was carried out on each participant. These included Standing height measured by Stadiometer; Body weight measured by weighing machine, Two Length measurements- Arm length, Leg length, measured by Lufkin Anthropometric Tape. The data were collected by following standard testing protocol of International Society for the Advancement of Kinanthropometry. The playing ability which was taken as the performance factor was subjectively assessed by three qualified Kabaddi coaches. All testing was done two day before inter - collegiate competition by using scientifically approved equipments. Mean and Standard deviations were calculated for each of the selected variables. The inter-relationship among the selected anthropometrical, physical, physiological and psychological variables and Kabaddi playing ability, were computed by using Pearson's product-moment correlation coefficients. The results revealed that an Inter-relationship exists significantly between the anthropometrical variables among male inter-collegiate Kabaddi players.*

**Keywords:** Correlations, Anthropometry, Kabaddi.

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### Introduction

Kabaddi is a traditional outdoor game played with minor variations in all regions of India - in fact, in most parts of Asia. It is an ancient backyard and homegrown game. Kabaddi requires tremendous physical stamina, agility, individual proficiency, neuromuscular coordination, lung capacity, quick reflexes, intelligence and presence of mind on the part of both attackers and defenders. It needs a small playing area, 14 players (seven on each side) take part and no equipment is required. The dimensions of the playing field are 12.5 x 10m (for adults) divided by a mid-line into two equal halves (each 6.25 x 10 m). Each half is the territory of a team (one for the raiders and the other for the defenders). The game is supervised by a referee, two umpires and a scorer. The side winning the toss has the option of sending their raiders first, or choosing a particular side. The raider takes the maximum possible inspiration and then moves to the other side of the field, uttering a continuous chant 'Kabaddi' without any further inspiration, to try to touch one of the defending players.

The defenders try to hold the raider within their area and the raider tries to force his way back to his own side without discontinuing the chant. If the raider is able to come back to his area after touching a defender a point is credited to his group and the person touched is put out of the game. On the other hand, the defending group gets a point if they can hold the raider, who then has to drop out. If a player is put out from one side, a player who had earlier been eliminated from the opposite group then rejoins his own side. A person from each group alternately raids the opposite side. This process continues until a team succeeds in putting out the entire opposing team. The successful side is then credited with two additional points (Lona). Also if any player goes out of the boundary line during the course of play, or if any part of his body touches the ground outside the boundary, he will be out (except during a struggle). The side scoring maximum points at the end of play is declared the winner. The time of play is 40 min with an interval of 5 min. Since kabaddi is an intermittent type of sport, it requires both aerobic, anaerobic endurance with a well built physique. These findings are in accordance with the Dey (2012).

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### Methodology

The purpose of the study was to find out the

Kabaddi playing ability with selected Anthropometrical variables among College level Players. One hundred and twenty six male inter collegiate Kabaddi players were randomly selected from various colleges in Tamilnadu state, India and their age ranged between 18 and 28 years. The subjects had past playing experience of at least three years in Kabaddi and only those who represented their respective college teams were taken as subjects. A series of anthropometrical measurements was carried out on each participant. These included Standing height measured by Stadiometer; Body weight measured by weighing machine, Two Length measurements- Arm length, Leg length, measured by Lufkin Anthropometric Tape. The data were collected by following standard testing protocol of International Society for the

Advancement of Kinanthropometry. The criterion variable, playing ability of the selected Kabaddi players were assessed by three qualified Kabaddi coaches which was taken as the performance factor. The guidelines for assessment were provided by the investigator. Each coach will rate the playing ability of the selected players in 10 points scale for each subject. All testing was done two day before inter - collegiate competition by using scientifically approved equipments. Mean and Standard deviations were calculated for each of the selected variables. The inter-relationship among the selected anthropometrical variables and Kabaddi playing ability, were computed by using Pearson' product-moment correlation coefficients.

## Results

**Table I.** Descriptive Statistics of College level Players

S.No	Variables	Mean (N=126)	SD
1	Playing ability	7.9206	± .96003
2	Height	170.8175	± 6.70570
3	Weight	62.8413	± 6.90902
4	Leg Length	99.3651	± 5.86052
5	Arm Length	73.1349	± 3.96253

Table I showed the descriptive statistics – Mean and Standard deviation of Anthropometrical characteristics & playing ability of College level Kabaddi Players. The present study attempted to link the

coaches rating as measure of playing ability with the anthropometric characteristics of college level Kabaddi Players, correlation analysis was made.

**Table II.** Inter-Correlation of Selected Anthropometrical Variables with the Playing Ability of college level Kabaddi Players

Variables	Height	Weight	Leg Length	Arm Length
<b>C.R</b>	.08	.26	.34*	.27*
<b>X<sub>1</sub></b>	--	.36*	.87**	.81**
<b>X<sub>2</sub></b>		--	.20	.18
<b>X<sub>3</sub></b>			--	.79**
<b>X<sub>4</sub></b>				--

Table II shows that there was a correlation exists between the playing ability versus leg length ( $r = 0.34$ ), arm length ( $r = 0.27$ ) variables showed correlation with the playing ability.

## Conclusions

The results revealed that there was a correlation exists between the playing ability versus leg length, and arm length.

## References

1. Dey, S., K., Khanna, G., L. and Batrat, M. (2012).

Morphological and physiological studies on Indian national Kabaddi players. Br J Sports Med, 27: 237-242.

2. Jadhav, K., M. (2011). Role of Yoga in Kabaddi Sport. Golden Research Thoughts, Vol.1, Issue.II.
3. Kamlesh, M., L. (1983). Psychology in Physical Education and Sports. New Delhi : Metropolitan Book Company.
4. Martens, R., Burton, D., Vealey, R., S., Bump, L., A., & Smith, D., E. (1990). Development and validation of the competitive state anxiety

- inventory-2 (CSAI-2). Competitive anxiety in sport. Champaign, IL: Human Kinetics, 117-173).
5. Verma, A., Rana, D and Singh, A. (2011). To Develop Physical Profile of Kabaddi Players: The

Descriptive Study. Indian Journal of Movement Education and Exercises Sciences. (IJMEES), Vol. I No. 1.