



## Prediction of Playing Ability in Kabaddi from Selected Psychological Variables among College Level Players

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### Abstract

*The purpose of the study was to predict the playing ability in Kabaddi from selected psychological 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. Psychological factors namely Somatic anxiety, Cognitive anxiety and Self confidence were assessed by Competitive Sports Anxiety Inventory – II (CSAI - 2) questionnaire developed by Martens, Burton, Vealey, Bump and Smith (1990) and Sports achievement motivation level was assessed by Kamlesh (1983) SAMT questionnaire. 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' product-moment correlation coefficients. All selected anthropometrical, physical, physiological, psychological variables that statistically correlated with performance were used to form respective linear predictive models (step-wise argument selection). The results revealed that an Inter-relationship exists significantly between the psychological variables among male inter-collegiate Kabaddi players. The results also revealed that Self confidence become the common characteristics which can predict the playing ability in Kabaddi players.*

**Keywords:** Prediction, Regression, Psychological, Kabaddi.

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### Introduction

Kabaddi is a game of 2 teams of 12 players each, where one team becomes the raiders and the other team anti raiders. Seven players shall take the ground at a time and the remaining five players shall be reserved. The raider has to go to the opposing court with the continuous clear sound recitation aloud of the word 'Kabaddi' without stopping to take a breath and should try to touch an anti raider and make him out. The duration of a match for men shall be 2 halves of 20 minutes each. For women and juniors there will be 2 halves of the duration of 15 minutes each. There shall be an interval of 5 minutes between both the halves. The side that wins the toss shall have the choice of the court or the raid. In the second half, the court shall be changed and the side which had not sent their raider first shall send their raider first. The game in the second half shall continue with the same number of players as it was at the end of the first half.

### Methodology

The purpose of the study was to predict the playing ability in Kabaddi from selected psychological 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. Psychological factors namely Somatic anxiety, Cognitive anxiety and Self confidence were assessed by Competitive Sports Anxiety Inventory – II (CSAI - 2) questionnaire developed by Martens, Burton, Vealey, Bump and Smith (1990) and Sports achievement motivation level was assessed by Kamlesh (1983) SAMT questionnaire. 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. The ratings given by the coaches on each subject will be added and will be divided by three

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to make the individual score of the subject. The correlation between the coaches on performance ratings was highly correlated ( $r = 0.87$ ). Model has been calculated, as well as correlation of all variables in the system, finally, the interpretation of the results has been done. 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 psychological variables and Kabaddi playing ability, were computed by using Pearson' product-moment correlation coefficients. All selected anthropometrical, physical, physiological and psychological variables that statistically correlated with performance were used to form respective linear predictive models (step-wise argument selection).

## Results

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

S.No	Variables	Mean (N=126)	SD
1	Playing ability	7.9206	$\pm .96003$
2	Somatic anxiety	21.1587	$\pm 4.41889$
3	Cognitive anxiety	17.6429	$\pm 5.81785$
4	Self confidence	23.5952	$\pm 5.78713$
5	Sports achievement motivation	23.6270	$\pm 4.69337$

Table I showed the descriptive statistics – Mean and Standard deviation of psychological factors & playing ability of College level Kabaddi Players. The present study attempted to link the coaches rating as

measure of playing ability with the psychological factors of college level Kabaddi Players, correlation analysis was made.

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

Variables	Somatic Anxiety	Cognitive Anxiety	Self Confidence	Sports Achievement Motivation
<b>C.R</b>	.01	.27	.46*	.11
<b>Somatic Anxiety</b>	--	.11	.19	.06
<b>Cognitive Anxiety</b>		--	.10	.11
<b>Self Confidence</b>			--	.07
<b>Sports Achievement Motivation</b>				--

Table II shows that there was a correlation exists between the playing ability versus Self confidence ( $r = 0.46$ ), cognitive anxiety ( $r = 0.27$ ) variables showed correlation with the playing ability. Rest of other all characteristics shows low correlation with the playing ability of college level Kabaddi players. Next, by means of stepwise selection, the best models of linear

regression for predicting the playing ability of college level Kabaddi players was analysed. In each model, only the variable that achieved significance with the cut-off criteria set at probability of  $F < \text{equal to or less than } 0.001, 0.01 \text{ and } 0.05$  level was listed. The predictor variables and their importance in predicting the playing ability of Kabaddi players are presented in the table III.

**Table III.** Regression Analysis of Predictive Equation in college level Kabaddi Players

Model	Variables	R	R Square	Unstandardized Coefficients		Standardized Coefficients
		R Square Change	F Change	B	Std. Error	Beta
1	(Constant)			9.554	1.530	
	Self Confidence	.739 (a)	.546	-.407	.149	-.187

( $n=126$ ) : ( $R^2 = .605$  for step 1:  $\Delta R^2 = .546$  for final step) Significant at \*  $p < 0.5$ .

$$\text{Playing ability} = 9.554 - 0.407 (\text{SC})$$

Table III shows the Regression Analysis of Predictive Equation in college level Kabaddi Players in the samples. Among the psychological variables self confidence added significantly (0.01 and 0.05 levels) to the prediction of the playing ability in college level Kabaddi Players up to the final model.

### Conclusions

From the analysis of data,

1. The results revealed that there was a correlation exists between the playing ability versus Self confidence and cognitive anxiety.
2. The results also revealed that Self confidence become the common characteristics which can predict the playing ability in Kabaddi players.

### References

1. Jadhav, K., M. (2011). Role of Yoga in Kabaddi Sport. Golden Research Thoughts, Vol.1, Issue.II.
2. Kamlesh, M., L. (1983). Psychology in Physical Education and Sports. New Delhi : Metropolitan Book Company.
3. 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).
4. 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.

### References

1. Avery, M., Auvine, B., Streibel, B., and Weiss, L. (1981). *Building united judgement: A handbook for consensus decision making*. Madison, WI: Center for Conflict Resolution. (Available from the Center at P.O. Box 2156, Madison, WI 53701-2156).
2. Cox, F. M. (1995). "Community problem solving: A guide to practice with comments." In Rothman, J., Erlich, J. L., and Tropman, J. E. (eds.), *Strategies of community intervention* (5th ed., pp. 146-162). Itasca, IL: F. E. Peacock.
3. Dale, D., and Mitiguy, N. (1978). *Planning for a change: A citizen's guide to creative planning and program development*. Amherst, MA: University of Massachusetts, Citizen Involvement Training Project.
4. Johnson, D. W., and Johnson, F. P. (1997). *Joining together: Group theory and group skills* (6th ed.). Boston: Allyn and Bacon.
5. <http://www.etr.org/FFN/FGcourse/focusGroupCourse.html>.