Relationship Of Selected Psychological And Physiological Parameters To Performance Of University Female Kabaddi Players

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Abstract

Kabaddi is a combative team game played with absolutely no equipment on a rectangular court either outdoor or indoor with seven players on the ground in each side. The game is played into two halves of 20 minutes each with an interval of 5 minutes. The present study was carried out with the aim to find out the relationship between kabaddi performances and selected psychological & physiological parameters of university female kabaddi players. 180 kabaddi players were selected for this study. The psychological variables were anxiety, aggression and self-confidence. The physiological parameters included resting pulse rate and breath holding time. All the psychological & physiological variables were measured by using standardized test. The performance was measured by using subjects rating of 10-point rating scale..

Keywords:Anxiety, aggression and self-confidence, breath holding time, resting pulse rate

Introduction

An evaluation of the exercise response of high level sports competitors during competition can from a sound basis for the players' systematic development. The demands of various sports disciplines have been extensively studied. However, studies on the physiological demands of kabaddi players are scanty.

Kabaddi is a combative team game played with absolutely no equipment, on a rectangular court either outdoors or indoors with seven players on the ground in each side. The game is played into two halves of 20 minutes each with an interval of 5 minutes. It requires courage as well as ability to concentrate and anticipate the opponent's moves. In order to facilitate further growth of Kabaddi game, in order to facilitate growth of kabaddi game valid assessment procedures to comprehensively estimate the players physical, anthropometrical, psychological and physiological.

The present study was carried out with the aim to find out the relationship between kabaddi performance and selected psychological & physiological variables and parameters of university female kabaddi players.

Methodology

In the nourth-zone inter university Kabaddi championship held at to establish the nature of relationship between the performance in Kabaddi and the study variables, the following methodology was used.

Selection of the Subjects: The Subjects for this study were female Kabaddi players of universities who had received regular training and participated in competitive Kabaddi game. The subjects were participants in the north zone inter universityl Kabaddi championships. They were drawn from different universities of Utter Pradesh State who were rated as the best players by a panel of three expert coaches. The subjects were participants Ch Charan Singh University, Meerut (Utter Pradesh) during the year 2021-22

Sample size of the Study: The sample of the present study consisted of hundred (180) female Kabaddi players in the age group of 18 to 28 years.

Total performance of the selected subjects was rated by three experts subjectively on a ten-point rating scale. This was the dependent variable for this study.

Independent Variables: The various independent variables selected for the present study are listed below:

1. Psychological variables
1) Anxiety
2) Aggression
3) Self-confidence.

2. Physiological variables
1) Breath holding time
2) Resting pulse rate.

Objectives
- To study the relationship between Performance of Kabaddi players and study psychological and physiological variables.

Table 1: Psychological variables

Psychological variables	Test and Unit of Measurement
Anxiety	Rainer Martins Questionnaire
Aggression	Anand Kumar and Prem Shankar shulka Questionnaire
Self Confidence	Rekha Agnihotri Questionnaire

Table 6: Descriptive Statistics of Psychological variables

Psychological variables	N	Minimum	Maximum	Mean	Std. Deviation
Anxiety	180	16.00	30.00	26.5211	3.03683
Aggression	180	5.00	21.00	10.9000	2.09409
Self Confidence	180	16.00	46.00	24.2278	6.18691
Valid N (list wise)	180				

From the above table following details were given:
- The average Anxiety score of the players was 26.52 with standard deviation 3.03.
- The average Aggression score of the players was 10.90 with standard deviation 3.09.
- The average Self Confidence score of the players was 24.22 with standard deviation 6.18

Correlation analysis was used and the computations made were tabulated in the table

Table 2: Correlations

Psychological variables		Performance	Anxiety	Aggression	Self Confidence
**.					
Performance	Pearson Correlation	1	.012	-.083	-.008
	Sig. (2-tailed)		.849	.268	.916
	N	180	180	180	180
Anxiety	Pearson Correlation	.011	1	-.217**	-.157*
	Sig. (2-tailed)	.869		.003	.035
	N	180	180	180	180
Aggression	Pearson Correlation	-.071	-.217**	1	.515**
	Sig. (2-tailed)	.268	.003		.000
	N	180	180	180	180
Self Confidence	Pearson Correlation	-.006	-.157*	.515**	1
	Sig. (2-tailed)	.875	.035	.000	
	N	180	180	180	180

  Correlation is significant at the 0.01 level (2-tailed).

  *. Correlation is significant at the 0.05 level (2-tailed).

From the above table following inferences were drawn:

- The correlation between Performance and Anxiety was positive, $r = 0.011$ with $P = 0.849$ the test was not significant at 5% levels that is, there was no significant positive correlation between Performance and Anxiety.
- The correlation between Performance and Aggression was negative, $r = - 0.071$ with $P = 0.268$ the test was not significant at 5% levels that is, there was no significant negative correlation between Performance and Aggression.
- The correlation between Performance and Self Confidence was negative, $r = - 0.006$ with $P = 0.875$ the test was not significant at 5% levels that is, there was no significant negative correlation between Performance and Self Confidence.

Since the calculated Chi-square value was greater than table value, the test was significant at 5% levels, that is, the level of Self Confidence of Kabaddi players were not equally distributed. Among 180 Kabaddi players 30 (16.7%) were at below average level of Self Confidence, 118 (65.6%) were at average level of Self Confidence, and 32 (17.8%) were at above average level of Self Confidence and it was found to be statistically significant at 5% level of significant.

The correlation between Breath and Performance was negative, $r = - 0.004$ with $P = 0.923 > 0.04$, the test was not

significant at 5% levels. That is, there was no significant correlation between Breath and Performance at 5% levels.

Table 3: Physiological Variables

Physiological Variables	Equipment used to Measure	Unit of Measurement
Breath holding time	Manual nose clip	Second
Resting pulse rate	Digitalized heart rate monitor	Monitor Beats per minute

Breathe Holding time

The correlation between Breath holding time and Performance

Table 4: Correlation

Breath holding time		Breath	Performance
Breath holding time	Pearson Correlation	1	-.004
	Sig. (2-tailed)		.923
	N	180	180
Performance	Pearson Correlation	-.004	1
	Sig. (2-tailed)	.923	
	N	180	180

Resting Pules rate

The correlation between Resting pulse rate and Performance

Table 5: Correlations

Resting Pules rate		Performance	Resting
Performance	Pearson Correlation	1	.078
	Sig. (2-tailed)		.275
	N	180	180
Resting Pules rate	Pearson Correlation	.078	1
	Sig. (2-tailed)	.295	
	N	180	180

The correlation between Resting and Performance was negative, $r = -0.005$ with $P = 0.275 > 0.05$, the test was not significant at 5% levels. That is, there was no significant correlation between Resting and Performance at 5% levels.

The estimated regression equation of Performance on Breath and Resting was given by

Performance = 33.345-0.004 (Breath) + 0.050 (Resting)

Since $P = 0.578 > 0.05$, the test was not significant at 5% levels (ANOVA table), that is the above estimated regression equation of Performance on Physiological variables was statistically not significance at 5% levels.Since the calculated Chi-square value was greater than table value, the test was significant at 5% levels, that is, the level of Breath of Kabaddi players were not equally distributed. Among 180 Kabaddi players 25 (12.9%) were at below average level of Breath, 126 (71.1%) were at average level of Breath, and 27 (14.0%) were at above average level of Breath and it was found to be statistically significant at 5% level of significant.Since the calculated Chi-square value was greater than table value, the test was significant at 5% levels, that is, the level of Resting of Kabaddi players were not equally distributed. Among 180 Kabaddi players 22 (11.2%) were at below average level of Resting, 140 (75.8%) were at average level of Resting, and 18 (10.0%) were at above average level of Resting and it was found to be statistically significant at 5% level of significant.

Results and Discussion

With the emphasis made by the investigator in the of Introduction about eight variables under study were essential qualities of good performance in Kabaddi. With the findings narrated earlier the investigator found that the variables were significantly correlated with the performance in Kabaddi, step wise regression analysis was conducted for performance in Considering the psychological variables only as independent variables

analysis anxiety,aggression, and self-confidence, would act as predictors for performance in kabaddi. were at above average level of Self Confidence and it was found to be statistically significant with the performance in kabaddi. Considering the physiological variables only as independent variables in step wise regression analysis with the performance in Kabaddi, breath holding time and resting pulse rate were found to be not significantly associated with the performance in Kabaddi.

Conclusion

Among the psychological variable anxiety aggression, and self-confidence found only aggression act on a dominate predator variables for the performance in kabaddi. Among the physiological variables breath holding time and resting Pules rate found statistically not significant, with kabaddi performance.

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