

# Physical And Mental Factors On Playing Capacity Of Inter Collegiate Kabaddi In Thiruvalluvar District.

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## ABSTRACT

Purpose of the present study was to distinguish the physical and mental factors who can best anticipate the presentation of Kabaddi. With the end goal of study fifty Male Kabaddi players was chosen from various Inter Collegiate Kabaddi players of Thiruvalluvar region. The period of subjects was 17 to 21 years. To discover the playing capacity, leg unstable strength, shoulder dangerous strength, stomach strength perseverance, adaptability and nimbleness were chosen as actual factors while sports rivalry tension and self-assurance were chosen as mental factors. To quantify the chose factors standard test was utilized while playing capacity was estimated by board of three specialists on ten point rating scale. Information was gathered from various Inter Collegiate Kabaddi players from Thiruvalluvar region from earlier authorization of Director of Physical Education by legitimate clarified and showed of test to the subjects and required preliminary was given before definite exertion/endeavor. Elucidating measurements, Pearson item second relationship and direct relapse (step strategy) was utilized at 0.05 degree of importance. Discoveries uncovered that every one of the chose actual factors are altogether corresponded with playing capacity while both chose mental factors are not essentially related with kabaddi playing capacity. Where relapse model recommend that solitary Muscular perseverance and adaptability are suitable to cause maximal fluctuation in kabaddi playing capacity.

**Keywords:** Regression, step method and Kabaddi.

## I. INTRODUCTION

Sports execution is the amount of various elements which can change from one individual to another, regardless of whether eventually they accomplish comparative outcomes in contest. Lacking individual can be made up for being

predominant method, insufficient running rate by unrivaled perseverance or second rate procedure by forcefulness. A couple of centimeters and part of seconds choose record exhibitions, triumph or rout in extreme worldwide rivalries; therefore it is vital to distinguish and completely understand every people potential. Dirix and Knuttgen (1988) upheld that it has become a need to distinguish and choose a future tip top competitor directly in youth or early puberty. It requires numerous long periods of serious and ordinary preparing till a global games execution level is accomplished. The kids who are chosen for world class sports exercises require appropriate conditions, sports offices, hardware of top caliber, normal way of life, the direction of master sports doctors and knowledgeable and experienced mentors. Such conditions can be made for chosen youngsters at the correct age to get the nature of execution. In this way, the right ID of determination and situation of youthful ability is turning into a significant and testing task wherever in the cutting edge serious games world. It has become a need to recognize and choose a future world class competitor directly in youth or puberty. It makes numerous long stretches of escalated ordinary preparing till a worldwide games execution level is accomplished. The youngsters, who are chosen for world class sports exercises require reasonable conditions and sports offices gear of superior grade, a normal style of life and the help of specialists including a games doctor, an accomplished and experienced mentor and so on. Such conditions can be made for chosen kids as it were. Consequently, the right distinguishing proof, choice and situation of youthful abilities are turning out to be significant all over. Based on previously mentioned realities, it is considered beneficial to examine the fitting physical and mental variable as indicators for execution of volleyball youthful weapons. In addition, the current examination

would high light a portion of the significant abilities which may need to remember while searching for the determination of capable Kabaddi players and furthermore to foster these segments through the precise preparing program. Goals of the Examination to discover the situation with major parts comparable to physical and mental wellness. To discover the connection of actual factors and mental factors with Kabaddi playing capacity To distinguish the impact of chose physical and mental factors on Kabaddi playing capacity Philosophy: To accomplish the motivation behind present investigation fifty female kabaddi players was chosen deliberately from various Entomb University Kabaddi players from Thiruvalluvar district. The period of subjects was 14 to 17 years. To anticipate the playing capacity, leg dangerous strength, shoulder touchy strength, solid perseverance, adaptability and spryness were chosen as actual factors while sports rivalry

nervousness and self - certainty were chosen as mental factors. To gauge the chose factors standard test was utilized while playing capacity was estimated by board of three specialists on ten point rating scale. Information was gathered from various Bury University Kabaddi players from Thiruvalluvar area. Reason for test was clarified and test was shown to the subjects and required preliminary was given before definite exertion/endeavor. Distinct insights was utilized to decide the attributes of information and to know the situation with players. Pearson item second connection was utilized to discover the relationship of chose physical and mental factors with Kabaddi playing capacity, while to recognize the appropriate expertise that impact more to Kabaddi playing capacity straight relapse (step technique) was utilized at 0.05 degree of importance.

## II. FINDINGS

**Table 1:** Status of Kabaddi Players in relation to selected Physical Variables

Statistics	Leg explosive strength	Shoulder explosive strength	Muscular endurance	Flexibility	Agility
Mean	2.534	5.543	29.564	21.264	7.192
Median	2.530	5.410	30.000	22.000	7.300
Mode	2.710	5.310	30.000	25.000	7.300
Std. Deviation	.183	.631	2.268	5.387	.502
Coeff. Of Variance	7.232%	11.391%	7.673%	25.338%	6.986%
Skewness	-.042	.108	-.109	-.658	.222
Std. Error of Skewness	.378	.378	.378	.378	.378
Kurtosis	-.674	-.628	.818	.467	-.099
Std. Error of Kurtosis	.741	.741	.741	.741	.741
Range	.790	2.610	11.000	18.400	2.180
Minimum	2.610	4.300	24.000	9.600	6.200
Maximum	2.950	6.910	35.000	28.000	8.400

Table: I reveal that the mean and median for all the variables are nearly equal. Where coefficient of variance for agility is 6.986%, which is least among the physical variables so that agility is having least variation in compared to other variables. Where as it is highest in flexibility (25.338%) thus flexibility is variable in which Kabaddi players are most heterogeneous. In respect to skewness, leg explosive strength (-.042), Muscular endurance (-.109) and flexibility (-.658) is negatively skewed,  $SK < 0$ , which means most of the scores of leg explosive strength,

Muscular endurance and flexibility are more than its mean value. While shoulder explosive strength (.108) and agility (.222) is positively skewed, where  $SK > 0$ , it means most of the scores of shoulder explosive strength and agility is less than its mean value. In terms of kurtosis, Muscular endurance of Kabaddi players has positive value of kurtosis, which indicates that the scores cluster more around its mean value whereas leg explosive strength, shoulder explosive strength, flexibility and agility has negative value of kurtosis, which indicates that the scores cluster less around its mean value.

Table 2: Status of Kabaddi Players in relation to selected Psychological Variables and kabaddi Playing Ability

Statistics	State competition anxiety	Self confidence	Kabaddi Playing ability
Mean	10.714	32.051	6.397
Median	10.000	34.000	6.500
Mode	10.000	34.00	6.00
Std.Deviation	2.469	5.794	1.225
Skewness	.327	-1.430	-.190
Std. Error of Skewness	.378	.378	.378
Kurtosis	1.171	1.704	-.380
Std.Error of Kurtosis	.741	.741	.741
Range	12.000	24.000	5.000
Minimum	5.000	16.000	4.000
maximum	17.000	40.000	9.000

Table: 2 reveal that the mean and median for all the variables are nearly equal. In respect to skewness, state competition anxiety (-1.430) and Kabaddi playing ability (-.190) is negatively skewed, where  $SK < 0$ , which means most of the scores of state competition are more than its mean value, while self-confidence (.327) is positively skewed, where  $SK > 0$ , it means most of the scores

of self-confidence is less than their mean value. In terms of kurtosis both psychological variables of Kabaddi players has positive value of kurtosis, which indicates that the scores cluster more around its mean value. In terms of kurtosis, playing ability of kabaddi players has negative value of kurtosis, which indicates that the scores cluster less around its mean value

Table 3: Relationship of Kabaddi Playing Ability with Physical Variables

S.No	Independent Variable	Dependent Variable	Coefficient	Sig.
1	Leg Explosive Strength	Kabaddi Playing Ability	.381	.017
2	Shoulders Explosive Strength		.328	.042
3	Muscular Endurance		.513	.001
4	Flexibility		.385	.016
5	Agility		.502	.001

Table: 3 reveal that all physical variables are significantly correlated with Kabaddi playing ability, where obtained correlation coefficient

values of these physical variables, 0.381, 0.328, .513, .385 and -0.502 is significant at 0.05 level of significance.

Table 4: Regression Model Summary of Physical Variables in Relation to Kabaddi Playing Ability

Model	R	R Square	Adjusted Square	Std. Error of the Estimate	F- ratio	sig
	.593	.352	.316	1.014	9.758	.000

Predictors: (Constant), Muscular Endurance & Flexibility. This regression model reveals that the selected predictor variables are significantly related with Kabaddi playing ability where R represents the multiple correlation between all the predictor variables and the criterion variable. Thus the obtained multiple correlation

value is found significant, where obtained R (0.593) is significant at 0.05 level of significance.

R<sup>2</sup> represent the total amount of variance accounted for in the criterion variable by the predictor variables. Thus, the amount of variance is 35.2% in kabaddi playing ability by Muscular endurance and flexibility. Adjusted R<sup>2</sup> is a reduced

value for R square which represent the actual variance in criterion variables due to predictors. Therefore the actual variance is 31.6% in Kabaddi playing ability. Obtained F value reveals that

regression model is significant or not for prediction. Obtained F value 9.758 is significant at 0.00 level, which means that regression model cause variance in criterion variable and significant for prediction.

**Table 5:** Standardized Coefficient Table for Predictor Variables (Physical) of Kabaddi Playing Ability.

Model	Unstandardized Coefficients		Standardized Coefficients	t.	Sig.
	B	Std. Error	Beta		
Constant	-2.388	2.166		-1.103	.278
Muscular Endurance	.248	.748	.459	3.361	.002
Flexibility	.069	.031	.302	2.209	.304

**Equation to Estimate the Kabaddi Playing Ability** = - 2.388 + muscular Endurance (0.248) + Flexibility (0.069) Table reveals that values of regression coefficients is positively affecting the dependent variable, means increase in value of Muscular endurance and flexibility lead to increase in kabaddi performance at rate of respected coefficient value. Beta value reflects the relative importance of predictor variable and from

table it is clearly evident that muscular endurance has more effect in comparison to flexibility on Kabaddi performance. t value indicates the significance of predictor variable in model and t value of both the predictor variable is significant at 0.05 level hence both variables are contributing to increase the performance.

**Table 6:** Relationship of Kabaddi Playing Ability with Selected Psychological Variables

S.No	Independent variable	Dependent variable	Coefficient	Sig.
1	State competition Anxiety	Kabaddi playing Ability	-.121	.465
2	Self Confidence		-.099	.548

Table: 6 reveals that selected psychological variables are not significantly correlated with kabaddi playing ability, where correlation coefficient of state competition anxiety and self-confidence with Kabaddi playing performance is -.121 and -.099. Correlation coefficient of both psychological variables is not significant at 0.05 level of significance.

### III. CONCLUSION & DISCUSSION:

Consequences of the examination uncovered that mental factors (state rivalry uneasiness and self-assurance) are not directly associated with Kabaddi playing capacity. All those actual factors (shoulder dangerous strength, leg touchy strength, Solid perseverance, adaptability and dexterity) are essentially corresponded with Kabaddi playing capacity. Actual factors of the Kabaddi players for example leg touchy strength, shoulder hazardous strength, solid perseverance, adaptability and readiness are

the fit most to the idea of the Kabaddi match-up. As it is well obvious from different written works that shoulder and leg unstable strength is most overwhelming factors possibly it is identified with kicking and hopping capacity, or it is identified with quick development while riding and impeding without hardly lifting a finger, in every one of these occasions leg and shoulder touchy qualities assume an essential part. Kabaddi has been portrayed as Span sport with both anaerobic just as vigorous component. In long matches or competition play, the players need to twist, bounce and move a great many occasions which need great strong perseverance. It is one of the necessary characteristics for dominating in Kabaddi. In fact like numerous different games; Kabaddi is likewise a sort of game in which leg and thigh muscles assume a significant part in nimbleness, quickness and kicking. Particularly in kicking, hack and thigh muscle strength can improve the speed of a kicking. In this way, the preparation of the muscles on thigh, leg and shoulder is typically accentuated in

the actual preparing of kabaddi players. Adaptability is the following who found altogether related with Kabaddi playing execution of players. As we probably are aware Adaptability gives another measurement in execution that permits a more serious level of opportunity and simplicity of development combined for certain significant ramifications for more prominent security from injury. In Kabaddi, the players need to move out of nowhere forward way, sideward bearings, so adaptability of hip and back is of most extreme significance. As in investigation of Lee E.J. et al have discovered critical connection between's upward leap and hip flexion. His discoveries have upheld the supposition that more prominent adaptability is identified with more noteworthy talented execution. Accordingly, he has inferred that more noteworthy hip adaptability may profit the hopping and kicking capacity. The actual variable, nimbleness is likewise found altogether associated with execution of Kabaddi players. As written works uncovered, in a Kabaddi match-up, players should make an honest effort to forestall them by caught from protectors, and this expects players to be fast in response and quick in developments, and a player's moving velocity is influenced by numerous elements, including his/her response speed, the lower appendages' solidarity, hazardous power and nimbleness. In regard to mental factors results uncovered that chose mental factors are not altogether related with Kabaddi playing execution. As it is notable to us the normal age of a top dog group is as a rule in the scope of 23 to 28 years. It regularly needs 8 to 10 years to develop a hero group or to develop a top dog competitor. In this manner, the best age for enlistment is around 13 years for female

competitors and 15 years for male competitors. A significant issue in the enrollment is the expectation of the wellness, and the dependability of the forecast. So far the enrollment of Kabaddi players have been principally founded on close to home insight of the mentors, and this, somewhat, confines the improvement of Kabaddi sport.

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