



CO-RELATION OF HEIGHT EXPLOSIVE POWER AND STRENGTH ENDURANCE ON KABADDI PLAYING ABILITY

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Abstract

The main purpose of the study was to find out the relationship between height, explosive power and strength endurance on kabaddi playing ability of male kabaddi players. To achieve the purpose of the study, fifteen club kabaddi players who participated in the Raigad district federation tournament were selected as subjects at random. For the study playing ability was selected as depended variable for the study. And also the following variables such as height, was measured by using stadiometer explosive power by sergeant jump and strength endurance by sit ups. The selected performance related variable such as playing ability was measured with the help of three judges. The persons products moment correlation was used to find out the relationship between the selected independent variables and playing ability of Raigad district federation players. The results of the study showed that there is a significant relationship at .05 level of selected height, explosive power and strength endurance.

Key words : explosive power, Strength endurance, sergeant jump



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Introduction

Physical dimension has attracted the attention of psychologists as well as physiologists from the time immemorial almost since the start of our civilization. Classification of human brings on the basis of their physical built-up and structure is, probably the oldest type of classification in the history of our evolution.

Since early times there have been serious efforts to discover types of physique and to relate the

same to various aspects of personality. Naccarati (1921) adopted a morphological index, the ratio of height to weight, as the most satisfactory indicator of physical type. The identification of physical characteristics in a sport modality contributes to its success and enables to spot differences among players of different modalities, which is of great interest for both sport coaches and scientists. Sports performance is based in a complex and intricate diversity of variables, which include physical (general and specific conditions) , psychological (personality and motivation) and body (body morphology, anthropometry and body composition) Factors. The relationship between morphological variables and sports performance is the object of study of anthropometry and is an important element to be analyzed. Studies have pointed out the importance of physical characteristics for different sports such as volleyball, basketball kabaddi. Successful sporting performance at elite levels of competition often depends heavily on the explosive leg power of the player involved. Many team sports also require high levels of explosive power. Assessment is mostly often thought of as the apportion of the training program that occurs after an athlete has been trained. But if you want to know where you're coming from, Assessment before and during a kabaddi training program allows for testing of various athletic abilities to determine strengths and weaknesses. Many movements in sports tend to be repetitive. Constant repetition can cause incorrect muscular movement pattern. These athletic weaknesses will more than likely influence your tests results. Understanding common movement patterns is helpful in determining appropriate assessment tests for kabaddi training. Skills test batteries have been used in physical education and in sport to assess various components of the skills of players. These assessments served the teacher and coach to determine a players' level of ability, or their progress, weaknesses and strengths. These test batteries for sports performance usually dealt with the physical fitness components like strength and endurance, or the motor skills components, like speed, agility, power, or accuracy. Testing helps athletes and coaches assess athletic talent and identify physical abilities and areas in need of improvement.

Data has been produced for many elite individual and team sport athletes for physical and physiological characteristics, including standing vertical jump scores, related to specific sports performance (Black and Roundy, 1994) Courts, 1976: Latin ethal, 1994 L Sawaula, 1991) Greater the general quality of speed, strength, power, endurance, flexibility and agility the more quickly will be the specific skill he learned and once learned the better will be the performance (Belay, 1987). Participation requires expertise in many physical skills and performance is often

dependent on an individual's fitness level. However few studies in the literature have investigated physical and physiological characteristics of kabaddi.

Methodology

Subjects and Variables

Fifteen male kabaddi players from various universities in the inter university tournament were randomly selected to take part in the study. The following criterion variables playing ability and independent variables (standing height , explosive power and strength endurance) were considered in the study. The selected variables were assessed by using standard testing. The selected variables like height was measured by using stadiometer, explosive power by sergeant jump and strength endurance by sit ups. The selected performance related variable such as playing ability was measured with the help of three judges in the inter university tournament. In order to study the relationship between the criterion and determinant variables and inter relationship between determinant variables were computed, using the method of Pearson's product moment correlation. The level of significance was accepted at $P < 0.05$

Results

The mean and standard deviation values among the criterion and the selected independent variables were presented in table- I

Table- The Mean And Standard Deviation Of Height, Explosive Power, Strength Endurance and playing ability of badminton players

Variables	M	S.D	N
Height	177.66	2.87	15
Explosive power	54.80	4.26	15
Strength endurance	47.66	2.46	15
Playing ability	18.06	1.53	15

The correlation coefficient values on height, explosive power and strength endurance on playing ability of kabaddi players were presented in table-II

Table ii Correlation coefficient values on Height, explosive power and strength endurance on playing ability of Raigad district federation kabaddi players

Variables			
Height	Pearson correlation	I	
Explosive power	Pearson correlation	.847(**)	I

Strength endurance	Pearson correlation	.769(**)	.774(**)	I
Playing ability	Pearson correlation	.767(**)	.854(**)	.780(**)

Significant at .05 levels is .641

The correlation coefficient of kabaddi playing ability with height, explosive power and strength endurance was significant at 0.05 level, since the obtained value of 0.747, 0.854 and 0.780 respectively was greater than the required value of 0.641 for 13 degrees of freedom. The results of the study indicate that the selected variables were highly correlated with kabaddi playing ability.

Discussion

In the physical fitness, mental and skill of relationship of kabaddi study, “kabaddi is a game of skill, speed, power and control “.”fitness is that state which characterizes the degree to which the person is able to function. Fitness is an individual matter. It implies the ability of each person to live most effectively with his potential. Ability to function depends upon physical, mental, emotional and social components of fitness, all of which are related to each other and mutually interdependent.” Kirchner. A specific kabaddi physical fitness testing on kabaddi players. The results showed that male kabaddi players must be strength, muscle endurance and agility, and female players must be footwork, cardiorespiratory function power and agility. In endurance sports, body morphology together with physical, technical, tactical, and psychological need to be taken into account as they are important factors for selecting players. Strength endurance is used to develop the athlete’s capacity to maintain the quality of their muscles’ contractile force in a climate of endurance. All players need to develop a basic level of strength endurance examples of activities to develop strength endurance are weight training, circuit training, Fartlek, hill running etc.

References

- Black, W. and Roundy, E. 1994. Comparisons of size strength speed and power. Journal of strength and conditioning research Vol.8(2)*
- Dick, Frank W. (1980) Sports training principles. London: Lepus Books.*
- Wilmore, J.H. and Costell, D.L (1999) Physiology of sports and exercise. Champaign II: Human Kinetics.*
- Balir Jones and Simpson: Educational Psychology. The MacMillan Co., New York, 1962.*
- Latin, R. W. et al 1994 physical and performance characteristics of NCAA Division I male basketball players. Journal of Strength and condition Research.*
- Duncan, M Wood field, L: Al-Nakeeb, Y. anthropometric and physiological characteristics of junior players. Br. J sports Med v. 40*