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Correlation Between Selected Kinanthropometric Variables With Playing Ability Among Handball Players

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Abstract

The purpose of the study was to correlate the playing ability in handball from selected kinanthropometrical variables among handball players. To achieve the purpose two hundred and eighty nine Handball players were randomly selected from various colleges in Tamilnadu state, India and their age ranged from 18 to 25 years. The subjects had past playing experience of at least three years in handball and only those who represented their respective college teams were taken as subjects. As the performance is concerned, the kinanthropometrical variables play a vital role in overall performance. The researcher reviewed number of various journals, books, e-resources, unpublished theses, dissertations and coaching manuals in which they found that the standard skills of handball may have relationship with selected kinanthropometrical variables. Based on these observations, the investigator selected the following independent variables for this study. The Kinanthropometrical variables namely – Body Weight, Thigh Girth, Calf Girth, Arm length, Hand length, Palm length and Chest girth. The playing ability is the dependant variable. It was taken as the performance factor, which was subjectively assessed by three qualified handball coaches. The inter - relationship among the selected kinanthropometrical variables and handball playing ability, were computed by using Pearson' product-moment correlation coefficients. The results revealed that an Inter – relationship exists significantly between the kinanthropometrical variables among male inter - collegiate handball players.

KEYWORDS: Correlation, Kinanthropometrical, Playing Ability, Handball.

INTRODUCTION

One of the destinations of coherent research is to anticipate future events or results from present or past data. There are differing sorts of desire and in perspective on some entrenched substances in this way they are strong conjecture. Research in the field of games and entertainments had exhibited that the future execution of an individual or gathering could be foreseen through the examination of explicit elements, which are seen to be the explanation behind mean execution. Among numerous components the going with factors, for instance, anthropometrical, physical and physiological elements that pick the playing limit of an individual are progressively basic. Ball is one of the gathering based games and it is played the two men and women all through the world.

Kinanthropometry is a logical field clarifying the connection between human structure and capacity quantitatively or an order inquiring about the connection between human structure and conduct or inspecting the impact of human estimation and morphological structure on conduct by thinking about morphological contrasts. It has been considered for a long time that an appropriate body type assumes a significant job in sportive presentation. Indeed, even in old occasions, reads were performed for looking at physical structure of individuals and as per the consequences of these, individuals were ordered fundamentally. Today, the connection between

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the physical structure and capacities are analyzed and examines identified with the assurance of sportive presentation are led constantly. Anthropometric estimations and somatotype has gotten significant for deciding aptitudes from the principal thinks about until today. Noteworthy improvements in all games branches are a result of the assessment of key and explicit anthropometric and kinesiology characters of competitors. Studies have uncovered that there are critical contrasts in physical structures of competitors in various game branches. Kinanthropometry considers the human size, shape, extent, piece, development, and gross capacity, so as to get development, exercise, execution, and nourishment (Singh and Singh, 1989). It is a logical order that is worried about the estimation of people in an assortment of morphological viewpoints, its application to development and those variables which impact development, including: segments of body construct, body estimations, extents, organization, shape and development; engine capacities and cardio respiratory limits; physical movement including recreational action just as exceptionally specific games execution (Stewart, 2010).

METHODOLOGY

The purpose of the study was to correlate the playing ability in handball from selected kinanthropometrical variables among handball players. To achieve the purpose two hundred and eighty nine Handball players were randomly selected from various colleges in Tamilnadu state, India and their age ranged from 18 to 25 years. The subjects had past playing experience of at least three years in handball and only those who represented their respective college teams were taken as subjects. As the performance is concerned, the kinanthropometrical variables play a vital role in overall performance. The researcher reviewed number of various journals, books, e-resources, unpublished theses, dissertations and coaching manuals in which they found that the standard skills of handball may have relationship with selected kinanthropometrical variables. Based on these observations, the investigator selected the following independent variables for this study. The Kinanthropometrical variables namely – Body Weight, Thigh Girth, Calf Girth, Arm length, Hand length, Palm length and Chest girth. The playing ability is the dependant variable. It was taken as the performance factor, which was subjectively assessed by three qualified handball coaches. The inter - relationship among the selected kinanthropometrical variables and handball playing ability, were computed by using Pearson' product-moment correlation coefficients.

RESULTS

TABLE – I
DESCRIPTIVE STATISTICS

S.No	Variables	Minimum	Maximum	Range	Mean	SD (±)
1	Body Weight	58.50	78.80	20.30	69.00	5.95
2	Thigh Girth	43.35	82.00	38.65	63.49	13.28
3	Calf Girth	30.12	39.32	9.20	34.02	2.89
4	Arm Length	70.00	88.50	18.50	78.97	5.41
5	Hand length	16.90	20.90	4.00	18.74	1.12
6	Palm Length	10.00	12.10	2.10	11.05	0.62
7	Chest Girth	76.01	98.35	22.34	85.53	7.05

Table – I showed the descriptive statistics –Minimum, Maximum, Range, Mean and Standard deviation of kinanthropometrical variables and playing ability of inter collegiate handball Players.

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TABLE - II
INTER-CORRELATION

S.No	C.R	X_1	X_2	X_3	X_4	X_5	X_6	X_7
X_1	0.042	1						
X_2	0.136**	0.348**	1					
X_3	0.147**	0.204**	0.251**	1				
X_4	0.366**	0.045	0.061	0.012	1			
X_5	0.325**	0.012	0.068	0.092	0.197**	1		
X_6	0.016	0.061	0.025	0.019	0.045	0.181**	1	
X_7	0.045	0.151**	0.127*	0.011	0.039	0.071	0.105*	1

It was evident from the Table – I that there was significant relationship between Handball playing ability (CR) and thigh girth (X_2), calf girth (X_3), arm length (X_4) and hand length (X_5) in each variables separately. The result proved that the selected variables Thigh girth (r = 0.136), calf girth (r = 0.147), arm length (r = 0.366) and hand length (r = 0.325) were significantly correlated with the handball playing ability were greater than the required table 'r' value of 0.10 to be significant at 0.05 level. And there was no significant relationship between handball playing ability and body weight (r = 0.042), palm length (r = 0.016) and chest girth (r = 0.045).

CONCLUSION

1. The results revealed that an Inter – relationship exists significantly between the kinanthropometrical variables among male inter - collegiate handball players.

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