

Study of motor performance in relation to anthropometry on pre-adolescent school going rural boys

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■ ABSTRACT

An increasing volume of research is trying to focus on establishment of relationship between different anthropometric parameters with effective participation in various motor activities. The study was aimed to evaluate motor performance in relation to selected anthropometric parameters of pre-adolescent rural boys. Total of 500 boys were selected randomly from different rural schools of CoochBehar district and their anthropometry and motor performance were measured through standard procedure and tests. Mean and SD were used as descriptive statistics and Spearman correlation co-efficient was used to evaluate the correlation between anthropometric parameters and motor performance. The level of significance was considered only at 0.05 level for this study. Results revealed that anthropometric parameter height, weight and BMI have positive correlation with flexibility, strength endurance, muscular strength, static balance and explosive strength but have negative correlation with reaction time and speed performance whereas BMI have negative correlation with CVE. PBF has negative correlation with flexibility, strength endurance, cardio-vascular endurance, static balance and explosive strength but positive correlation with muscular strength, reaction time and speed. Findings indicated that most of the motor performance involved with strength and power have improved as the height and weight increased and per cent body fat was negatively correlated with most of the motor performance which indicated that excess fat is not helpful to increase motor performance.

■ **Key Words** : Motor performance, Anthropometry, Pre-adolescent, School going rural boys

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Anthropometry refers to the measurement of the human individual. It is the study of human body measurements to assist in understanding human physical variations. It has also been used for the identification and to correlate physical with racial and psychological traits. Motor performance is an expression used to describe a person's ability to perform efficiently basic skills involving such functional components like flexibility, speed, agility, power, strength, endurance, balance etc. An increasing volume of research is trying to focus on establishment of relationship between different anthropometric parameters with effective participation in various motor activities. Present study analyses the performance of eight different motor abilities, in respect to

selected anthropometric parameters *viz.*, height, weight, BMI and body fat percentage (PBF) of pre-adolescent rural school going boys. The purpose of the study was to analyze the relationship between these anthropometric parameters with motor performance in pre-adolescent school going rural boys.

■ METHODOLOGY

Total of 500 school going boys of pre-adolescent were selected randomly as subjects for the present study. The age of the subjects were considered 10 to 14 years for the study. All the subjects were from rural background and most of them were from poor socio-economic status.