

A Study of Body Mass Index in Relation to Motor Fitness Components of School Going Children Involved in Physical Activities

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Abstract

The purpose of the study was to evaluate and compare the motor fitness in relation to Body Mass Index of school going children involved in physical activities. One hundred school going male children of 9th and 10th grade were selected to serve as subjects for this study. The researcher divided the entire 100 sample into three groups. i.e. Low BMI (N=25), middle BMI (N=50) and High BMI (N=25) groups, which were compared with each other. All the subjects were tested on Chin ups, Vertical Jump, Shuttle Run, Sit and Reach and BMI (Body Mass Index). In order to find out the significance of differences between the three BMI groups male children, mean, standard deviation, quartile deviation (Q1 and Q3) and t-ratio were computed. The results of the study revealed non significant differences between Low BMI and High BMI groups in their vertical jump, flexibility, chin-ups components of motor fitness. Low BMI group children were however found to be better in muscular strength, speed, and agility and similar on flexibility compared to high BMI group children. Low BMI group was also better on speed and agility components of motor fitness than the middle BMI group children and was similar in other components of fitness. Whereas, middle BMI group children were superior on muscular strength, speed, and agility and similar on vertical jump and flexibility components of fitness in comparison to high BMI group children.

Key words: Body Mass Index, Motor Fitness Components

Introduction

The term motor fitness is most often used synonymously with physical fitness by the coaches but it is very important for the physical education students to understand the basic difference between physical fitness and motor fitness. Physical fitness is used to denote only the five basic fitness components (muscular strength, muscular endurance, cardiovascular endurance, freedom from obesity and flexibility), whereas motor fitness is a more comprehensive term, which includes all the ten fitness

components including additional five motor performance components (power, speed, agility, balance and reaction time), important mainly for success in sports. In other word, motor fitness refers to the efficiency of basic movements in addition to the physical fitness (Kansal, 1996).

Physical educators, exercise physiologists, and physicians have proposed many tests to demonstrate the effect of such programs. These tests have generally been labeled “Motor Fitness Test” “Physical Fitness Tests” and