

Effect of Body Mass Index on physical fitness of human being

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■ ABSTRACT

Physical fitness is the basis of dynamic and creative intellectual activity. The intelligence and skill can only function at the peak of their capacity when the body is healthy and strong, the study was taken with the objective to analyze the effect of BMI on physical fitness of college going students. With the assistance and help of the experts in the field of physical fitness and BMI factors package was evolved. To obtain physical fitness components score and BMI, AAHPERED Youth Fitness test components like; flexed-leg sit-ups to measure abdominal strength and endurance, fixed- arms hang to measure arm and shoulder strength, shuttle run to measure speed and agility, 50-yards dash to measure speed, standing broad jump to measure legs explosive power and height and weight to measure BMI were organized. Physical activity at 11 years had no effect on the BMI trajectories, in females. More active females at 16 years gained BMI more slowly than others, by 0.007 kg/m²/year per activity category over the period 16–45 years. Consistent with these analyses, change in activity was associated with change in BMI in females, e.g. females active at 16 and 42 years gained less BMI than inactive females (2.1 vs 2.5 kg/m²/10 years). Results for males were inconsistent over the time periods examined.

■ Key Words : Physical fitness, Body mass index

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Physical fitness is the basis of dynamic and creative intellectual activity. The intelligence and skill can only function at the peak of their capacity when the body is healthy and strong (Lahti-Koski *et al.*, 2002). In the present situation there is need for the students to measure and analyze their physical fitness and body mass index (BMI) for their own benefit and improvement.

Hence, the study was taken with the objective to analyze the effect of BMI on physical fitness of college going students. With the assistance and help of the experts in the field of physical fitness and BMI factors package was evolved. With rates of obesity continuing to rise rapidly in adults and children worldwide, a recent report emphasized 'the need for prevention as the only feasible solution for developed and undeveloped countries alike'. Adulthood is a target period for prevention for several reasons, (i) Obesity tends to track, so, that fatter children are more likely to become fatter adults, (ii) Evidence is accumulating that children, like adults, suffer from adverse

health consequences relating to their obesity, (iii) Treatment of obesity is difficult, with limited effectiveness. In addition, lifestyle factors with the potential to influence obesity, such as physical activity and diet, generally show moderate tracking over time, and it has been argued that healthy lifestyle habits should be encouraged in children, rather than allowing unhealthy habits to become established, which may require change later.

Based on indirect evidence of transport use, and sedentary activities such as television viewing, it is argued that physical activity is a primary factor underlying the current high rates of obesity. Time trend data show that motorized transport use and hours spent watching television have been increasing over the last 30 years or so, providing suggestive evidence for declining activity levels. Walking and cycling have decreased in all age groups, with the greatest falls being in college-age children. In children aged 14 years or less, walking and cycling fell by 20 and 26 per cent, respectively, in