

Prevalence of Obesity and Its Influence on Physical Fitness and Energy Expenditure during Walking In Rural School-Children

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Abstract

Background: Recently childhood obesity has become common condition in children with widespread effect on other aspects of health too. **Objectives:** Report obesity prevalence and its influence on physical fitness and energy expenditure (EEI) during walking in rural school-children. **Methodology:** 300 primary, secondary and higher-secondary school children in Changa village aged 5 to 18 years, both girls and boys were included in the study. Outcome measures used were: waist circumference (WC), waist-height ratio (WHtR), EEI and 6 minute walk test distance (6MWD). **Results:** Of 175 boys, obesity prevalence was 6.79% using WC and 4.51% using WHtR. Of 125 girls, obesity prevalence was 14.37% using WC and 13.21% using WHtR. **Conclusion:** Prevalence of obesity was more in girls as compared to boys. High level of association between obesity and physical fitness in both genders. High association of obesity with EEI during walking amongst girls

Introduction

Obesity is defined as presence of excess adipose tissue in the body that may lead to health hazards. It is a heterogeneous group of conditions with multiple causes. In India, malnutrition has attracted the focus of health workers, but from past few

years, obesity in children is increasingly observed and it is a major problem or issue for developing countries (Chatterjee, 2002; Ramachandran et al, 2002; Mohan et al, 2004; Chattwal et al, 2004; Marwaha et al, 2006; Raj et al, 2007; Raj, 2009; Bhardwaj et al, 2008; Bharati, 2008; Saraswathi et al, 2011; Kotian,