

Overweight and obesity among school children of Allahabad

■ NEHA BANSAL AND JYOTSANA SINGH

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See end of the paper for authors' affiliations

Correspondence to :

NEHA BANSAL

Department of Home Science,
Nehru Gram Bharati
University, ALLAHABAD (U.P.)
INDIA

■ **ABSTRACT** : Overweight and obesity in children is gradually becoming a major public health problem due to changes in life style and increasing hours of physical inactivity. A cross sectional study was carried out in six different schools on 2436 school children age between 11 to16 yrs. Out of them, 1146 children were from private schools and 1290 were from government schools of this samples examined, boys and girls were 1200 and 1236, respectively. Weight and height of children were measured and body mass index was obtained by calculation. The prevalence of overweight, obesity and underweight was found to be 12.1 per cent, 5.41 per cent and 3.89 per cent, respectively. The prevalence of overweight and obesity was found to be significantly higher among boys (14% and 7.08%) than girls (10.27 % and 3.80%). Children studying in private school had significantly higher rate of overweight and obesity than those from government school (19.45% vs 6.00% ; 10.38% vs 1.08%). Prevalence of obesity was significantly higher among children who spent long hours on computer /videogames (>10hrs/week), indoor games (>10hrs/week), watching T.V. (>20 hrs/week), sleeping (>10 hrs/day) whereas involvement in exercises/ cycling, outdoor games/ sports (>30min/day) significantly lowered the obesity.

■ **KEY WORDS** : Body mass index, Obesity, Overweight, Physical activity

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Childhood overweight and obesity are global problems that are on rise (WHO, 2005). The proportion of children in the general population who are overweight and obese has doubled over the past two decades in developed and developing countries including India (Bundred *et al.*, 2001 and Ogden *et al.*, 2002). Childhood obesity is increasing being observed with the changing life, style of families with increased purchasing power, increasing hours of inactivity due to a addiction to television, videogames and computer, which have replaced outdoor games and other social activities (Singh and Sharma, 2005). School based data in India demonstrates prevalence of obesity in the range of 5.6 per cent to 24 per cent among children and adolescents (Greydanus and Bhave, 2004).

Obesity in childhood is an important risk factor for obesity in adulthood and up to 80 per cent of them become obese adults (Elizabeth *et al.*, 2004) with all the associated health risk problems including coronary artery disease, hypertension, diabetes, obstructive sleep apnoea,

osteoarthritis as well as psycho-social outcomes. In the Harvard study, morbidity from cardio-vascular disease, diabetes, obesity related cancer and arthritis were 50-100 per cent higher in obese individuals who were also obese as children (Must *et al.*, 1992). Due to the difficulty of curing obesity and overweight in adults and many long term adverse effects of childhood obesity, the prevention of child obesity has been recognized as a public health priority (Power *et al.*, 1997).

Evidence revealed prevention and management of childhood obesity is one of the effective ways to prevent obesity in adult life (WHO, 2000).

In view of this knowledge, It is sought to estimate the prevalence of overweight and obesity in children of age from 11 to 16 years and to identify the risk factors leading to rise in obesity.

■ RESEARCH METHODS

A cross sectional study was carried out on students