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PREVALENCE OF OVERWEIGHT AND OBESITY AMONG ADOLESCENT SCHOOL GOING CHILDREN (12-15YEARS) IN URBAN AREA, SOUTH INDIA

Prasanna Kamath B.T.[1], Girish M. Bengalorkar[2], Deepthi R.[1], Muninarayan C.[1], Ravishankar S.[1]

[1]Department of Community Medicine, Sri Devaraj Urs Medical College, Kolar, Karnataka, India
[2] Department of Pharmacology, Sri Devaraj Urs Medical College, Kolar, Karnataka, India

E-mail of Corresponding Author: btpkamath@yahoo.co.in

ABSTRACT

Background: Prevalence of overweight and obesity has increased for the past few decades. World Health Organization refers obesity as a global epidemic. There is a need to assess the prevalence and to find the factors responsible, so as to implement timely interventions.

Aims: To assess the prevalence of overweight and obesity among school going children and the factors responsible for the same. **Method:** The study was conducted in children studying at a private school in Bangalore aged 12-15years. Obesity was assessed using International Obesity Task Force criteria based on the body mass index. Pretested and semi structured questionnaire was used to collect the data on physical activity, eating habits and leisure time activity.

Results: The overall prevalence of overweight was 10% and obesity was 5% among 761 adolescents studied. The prevalence of overweight and obesity was 11% and 4% among boys and 9% and 5% among girls respectively. Factors like junk food, chocolate eating, physical inactivity and time spent in watching television and computer gaming were directly related to overweight and obesity.

Conclusion: Overweight and obesity are multifactorial and needs a multi pronged interventions at the earliest for control and prevention.

What this study adds:

1. Obesity and overweight among school going children are the common nutritional problems in developing countries including India.
2. Prevalence of overweight and obesity is more in school children in urban areas, there is no gender difference and lack of physical activity is one of the main culprits.
3. During annual health assessment of children, equal importance has to be given for undernutrition as well as overnutrition; policy has to be made to inculcate adequate physical activity and healthy dietary habits compulsorily in addition to academic excellence.

Keywords: Overweight, Obesity, leisure time activity, Commutation, Body mass index, adolescence

INTRODUCTION

Childhood overweight and obesity are global problems that are on the rise.[1] Obesity is one of the most prevalent nutritional diseases of children and adolescent in many developed and developing countries. During the past two decades, the prevalence of overweight and obesity in children has increased worldwide.[2] Obesity in childhood and adolescence has adverse consequences on premature mortality and physical morbidity in adulthood.[3] Outcome related to childhood obesity includes hypertension, type 2 diabetes mellitus, dyslipidemia, left ventricular hypertrophy, non-alcoholic steato-hepatitis, and obstructive sleep-apnea, orthopaedic and psychological problems. Childhood obesity is associated with a higher

The obese adolescents reach adulthood and add to the spiralling problem of diabetes, heart disease and hypertension. The impact of this on the health scenario of our country will be devastating and alarming. Obesity does not have any mentioning in the nutritional health status of school children, may be, due to the large number of undernourished children in our country even to this day of commendable growth and development in other fields.

Unless effective interventions and preventive strategies are initiated at the local and national level, the present increasing trend of obesity suggests that the trend of increasing cardiovascular diseases in adults observed in the recent decades will increase even further. This calls for concerted effort targeted at improving lifestyles of children and adolescents.

It is appropriate time that both under-nutrition and over-nutrition are given equal importance during health assessment of children annually. Measures have to be taken to improve the dietary habits which last, life time if imparted and implemented at young age itself. The physical growth and development has to be made a part of the overall personality development on par with academic excellence.

If done at the earliest with right earnest, our children can grow up into healthy young adults with better health indices and parameters for a better India.

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ETHICS COMMITTEE APPROVAL

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Table 1. Nutritional Status of children according to IOTF [11]

	Boys (%)	Girls (%)	Total (%)
Total Children Studied	421(100)	340(100)	761(100)
Undernourished (BMI<5th percentile)	101(24)	47(14)	148(19)
Normal (BMI 5th -85th percentile)	255(61)	244(72)	499(66)
Overweight (BMI 85th-95th percentile)	47(11)	32(9)	79(10)
Obesity (BMI >95th percentile)	18(4)	17(5)	35(5)

χ^2 is 14.36, df-3, p=0.002

Table 2. Transportation, physical activity and food preferences

Sl. No.	Transportation	Leisure time activity	Food Preferences
1	School bus (45%)	Outdoor games (70%)	Homemade food (55%)
2	Parents vehicles (20%)	Household activities (5%)	Bakery products (30%)
3	Walking/Cycling (35%)	Read, Computer, sleep (25%)	Fast food (15%)

Figure1. Showing distribution of children and nutritional status