



A Study on Prevalence of Obesity and Overweight among Adolescent Girls

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Abstract

The unabated rise in the prevalence of overweight in adolescents is one of the most alarming public health issues facing the world. The prevalence of obesity and overweight was determined among 732 affluent adolescent girls of Bengaluru. The results indicated that 21.17% of the girls were overweight and 13.38% were obese. Information regarding knowledge, attitude and dietary & lifestyle practices of 98 obese and 155 overweight adolescent girls was collected using a structured questionnaire. It was seen that although 49% of the adolescent girls had fair knowledge, and all the subjects had positive attitudes towards nutrition and healthy lifestyle, a negative correlation was seen between Knowledge and Practice; and Attitude and Practice. Faulty dietary practices such as irregular meal pattern, frequent consumption of energy dense, high calorie food and drinks and physical inactivity were seen to be the main causes of obesity and overweight in the girls. It was also seen that the intake of protein and fat was significantly higher ($p < 0.05$) than the RDA for obese and overweight adolescents.

Keywords— Obesity, Knowledge, Attitude, Practice and Dietary Practice.

I. INTRODUCTION

The prevalence of obesity among adults is a growing concern in both developed and developing countries. In developing countries, obesity rates are higher in urban areas compared to rural areas and often coexist with undernutrition. Women generally have higher rates of obesity than men in both developed and developing countries.⁽¹⁾ Adolescence is a time of many transitions for children in terms of physical growth, psychological development and emotional maturity. Adolescence seems to be one of the critical periods in the development of obesity. According to the WHO adolescents are young people between the age group of 10 and 19 years⁽²⁾.

Adolescence is a critical period in the development of obesity, as it is a time of many transitions in terms of physical growth, psychological development, and emotional maturity. The characteristic features of adolescent eating behavior, such as high-fat, energy-dense diets, irregular eating patterns, and increased out-of-home

eating, have been identified as major dietary factors contributing to obesity. Irregular eating patterns, including meal skipping, are common in adolescence, with breakfast being the most frequently skipped meal.⁽³⁾

Although the global epidemic of obesity is well-documented in adult populations, there is a lack of data regarding the prevalence of overweight and obesity in children and adolescents, particularly in developing countries such as India. There is also limited research on the prevalence of obesity among adolescents in affluent populations in India. Therefore, this study was undertaken to determine the prevalence of overweight and obesity among adolescent girls in Bengaluru.

II. METHODOLOGY

The sampling technique used in this study was judgmental, where five schools in Bengaluru catering to the high-income group population were selected for data collection.

A total of 253 subjects were included in the study. To assess body image, physical activity, and diet, a well-formed questionnaire using the Likert scale was developed. Height, weight, and waist circumference were measured using standard procedures.

III. RESULTS

The rapid urbanization and lifestyle modifications in developing countries like India have led to an increase in the prevalence of obesity among children and adolescents. It is important to identify the risk factors and implement prevention and management strategies to prevent obesity and its consequences in adulthood.

A study was conducted to determine the prevalence of obesity among adolescent girls, and the results showed that 13%, 37%, 24%, and 10% of 11-year-old, 12-year-old, 13-year-old, and 14-year-old girls, respectively, were obese. Interestingly, the prevalence of overweight and obesity tended to decrease as the age of the girls increased. This finding is consistent with another study conducted by Bansal et al in which the prevalence of overweight and obesity among school children in Allahabad showed a similar trend. ⁽⁵⁾

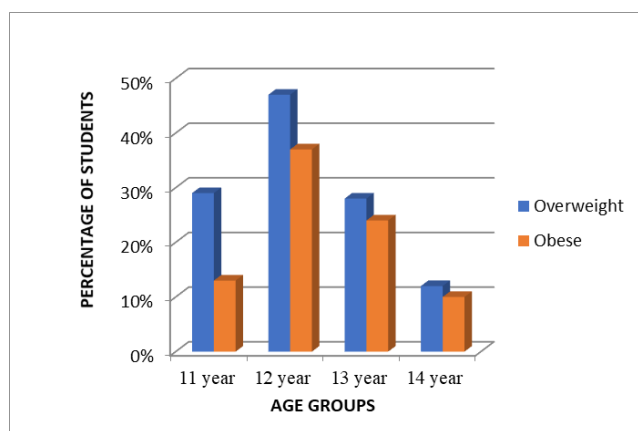


Fig. 1: Prevalence of Obesity and Overweight among Different Age Groups

During adolescence, individuals undergo significant developmental and social changes that can affect their lifestyle and eating habits. School children, in particular, have substantial purchasing power and access to various food options. A study revealed that nearly half (49%) of the adolescent girls had a fair level of knowledge about nutrition and healthy lifestyles. Furthermore, all the adolescent girls displayed positive attitudes toward nutrition.

However, when it came to their dietary practices, the study found that 48% of adolescent girls consumed only two major meals per day and small meals in between. Additionally, 52% of the girls skipped breakfast and consumed unhealthy snacks between meals.

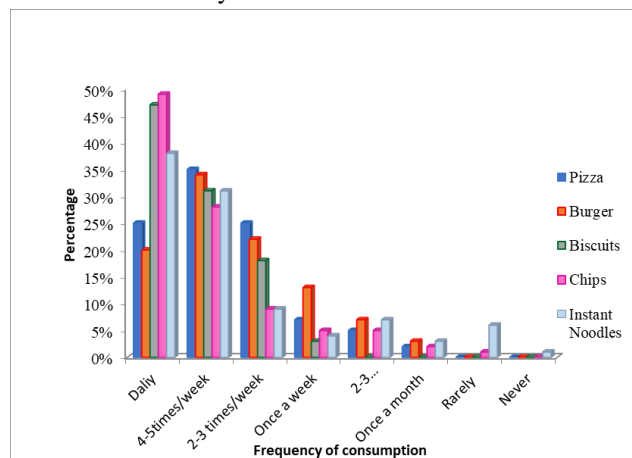


Fig. 2.: Frequency of Consumption of Junk Foods

The study group showed high consumption of junk foods, which was identified as a significant contributing factor to the development of obesity.

The study also assessed the dietary intake of macronutrients and found that the intake of protein and fat was much higher than the recommended daily requirement. Obese and overweight adolescents derived a greater percentage of their energy from protein and fat, while their carbohydrate intake was comparatively lower. This imbalanced dietary pattern could potentially contribute to the development of obesity and other related health issues.

IV. CONCLUSION

Based on recent studies and the current scenario, there is an increasing trend in the prevalence of obesity among urban populations. Obesity is a multifaceted disease that requires a comprehensive approach for effective management. In developing countries, it is crucial to address obesity at an early age through lifestyle modifications and nutrition education. Implementing nutrition education programs can be an important step forward in promoting healthy eating behaviors among adolescents, thus potentially preventing the onset of obesity and related health problems later in life.

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