"To Study the Effect of Dietary Intake on the Occurrence of Childhood Obesity in School Children of Tara Convent School Malerkotla Punjab"

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ABSTRACT

Obesity is the prime concern of all health conscious in modern world. Childhood obesity has become a new challenge for healthcare providers. The issue is not limited to certain parts of the world; its prevalence is increasing worldwide. The causes of obesity are poorly understood and continue to be debated and studied. It is a multi factorial disorder which involves dietary, behavioral, environmental as well as genetic factors. The increased consumption of more energy-dense, nutrient-poor foods with high levels of sugar and saturated fats, combined with reduced physical activity, have led to high obesity rates among children. The aim of this study was to assess the effect of dietary intake on the occurrence of childhood obesity, and study other associated factors including the education, occupation and income of parents and the living status.

Key words: Obesity, Tara Convent School, Punjab

INTRODUCTION

Childhood obesity has more than doubled in children and quadrupled in adolescents in the past 30 years. The percentage of children aged 6–11 years in the India who were obese increased from 7% in 1980 to nearly 18% in 2012. Similarly, the percentage of adolescents aged 12–19 years who were obese increased from 5% to nearly 21% over the same period. In 2012, more than one third of children and adolescents were overweight or obese. Overweight is defined as having excess body weight for a particular height from fat, muscle, bone, water, or a combination of these factors. Obesity is defined as having excess body fat. Overweight and obesity are the result of "caloric imbalance"- too few calories expended for the amount of calories consumed - and are affected by various genetic, behavioral, and environmental factors. Childhood obesity has both immediate and long-term effects on health and well-being. Obese youth are more likely to have risk factors for cardiovascular disease, such as high cholesterol or

high blood pressure. In a population-based sample of 5 - to 17 year-old children, 70% of obese youth had at least one risk factor for cardiovascular disease.

MATERIAL AND METHODS

This is a cross-sectional study conducted at Tara Convent School Malerkotla Punjab. The school was selected randomly, from different areas that have different socioeconomic status in the city, using a cluster sampling method, classrooms were selected randomly, and all the students in a classroom were invited to participate in the study. Only students, both male and female who brought the signed consent were selected and included. Finally, 196 normal healthy school girls and 85 school boys between the age of 6- 15 years were selected.

RESULTS

The study shows a significant relation between fast food intake and body weight (p=0.0280). The percent of students consuming fast foods three times or less per week was higher among the non-overweight or non-obese group (74%) when compared to the overweight or obese group. Students consuming fast food 13- times/week represented (54%) of selected sample while (20%) did not consume any fast food. It was also observed that (72.5%) of the overweight or obese students consumed fast food at least 4 times/ week, and the rest (15.9%) were taking fast food 1-3 times/week, while only (11.6%) of the same overweight or obese group did not consume any fast food/week (Figure 1). Fast food consumed by students consisted of: Shawerma, Pizza, or Burger (beef, lamb, or chicken).

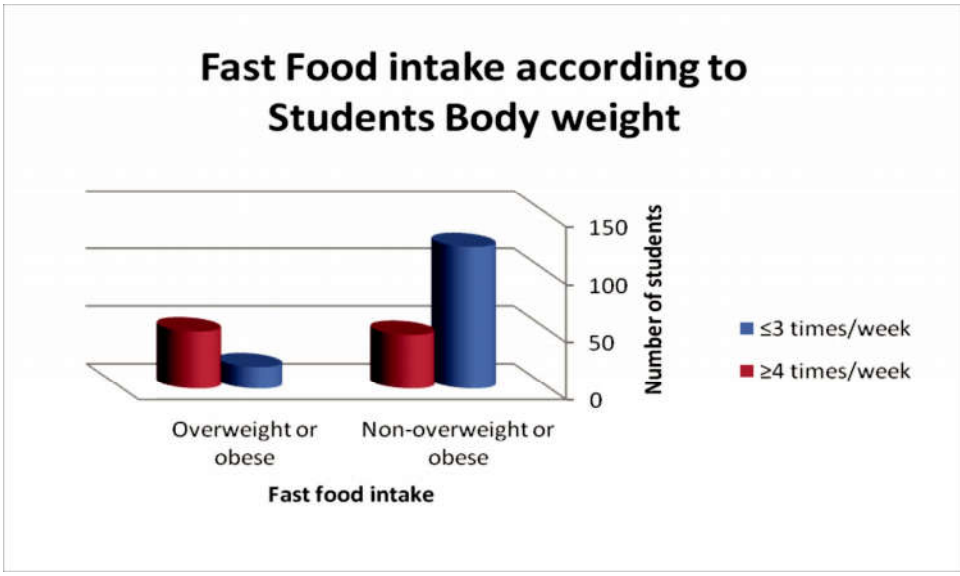

Figure 1 - Fast food intake according to students' body weight

DISCUSSION

Obesity among school children is a growing concern. A number of factors contribute to childhood obesity. The most common among those factors are genetic factors, lack of physical activity, unhealthy eating patterns, or a combination of these factors. Only in few cases, being overweight or obese is caused by a medical condition such as a hormonal problem. A physical examination and relevant laboratory tests can rule out the possibility of a medical condition as the cause of obesity. Body Mass Index is an appropriate screening test to identify children who should have further evaluation and follow-up, but it is not diagnostic of level of adiposity.

CONCLUSION

The prevalence of childhood obesity is changing and increasing yearly and is attributed to the nutritional risk factors for the school-age children. There is significant difference between male and female school students where females outnumbered the male students both at primary and secondary schools. There is a significant correlation between the prevalence of overweight or obesity and level of education where overweight and/or obesity among the primary school students level (although it was high) was lower as compared to the Intermediate and High school students.

LIMITATIONS OF THE STUDY

The 24-hours dietary recalls were taken by phone; it was difficult to have data from all participants due to unanswered phone calls

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