A STUDY TO ASSESS THE PREVALENCE OF CHILDHOOD OVERWEIGHT AND OBESITY AMONG CHILDREN AGED 6-12 YEARS IN SELECTED URBAN SCHOOL

Nursing

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ABSTRACT

Objectives: To assess the prevalence of childhood overweight and obesity among children aged 6-12 years.

Methods:-Cross sectional descriptive study was conducted .264 samples collected by stratified random sampling .The height and weight of the samples were measured and BMI was calculated. The children whose BMI is above 85th to 95th percentile is considered as overweight and >95th are considered as obese. A semi structured questionnaire on time spent on TV, Computer and smart phone, physical activities and dietary habits was administered to overweight and obese children to find out the factors contributing to it. Data collected was analysed and interpreted using descriptive statistics (Frequency and percentage) and inferential statistics using chi square and Fischers test. The prevalence of obesity and overweight were determined.

Results:-264 samples were participated in the study. The age group of children was of 6-12years of age.56.8% were males and 43.2%were females. Maximum of 56.4% were in first order of birth.51.1% were vegetarians and 48.9% were non vegetarians. The prevalence of overweight was 20.08% and obesity was 34.85%. Association of selected BMI with selected socio demographic variables showed there was statistical significance between BMI status of the sample with gender, Occupation of father, Educational status of father, Educational status mother, Monthly income of the family, h/o obesity in parents with p<0.05.

Conclusion- The results of the study have shown that there is a high prevalence of overweight and obesity among the school children .The main factors are associated are dietary habits and sedentary life style. Definitely disproportion in calory intake and burn out. Parents and the teachers need to be alert on developing healthy food habits and adequate physical activity to engulgate in children at home and at school.

KEYWORDS

Obesity, overweight, schoolchildren, prevalence, Diet, Life style,BMI

INTRODUCTION

Historically, a fat child means a healthy child, one who is likely to survive the rigors of under-nourishment and infection. But unlike the past, today obesity or overweight in childhood is considered as a major health risk condition. Furthermore, obese children often become obese adults; some studies have found that even 2 to 5-year-olds with a high BMI are likely to become obese adults.[1] Besides suffering from physical illnesses, obese adults and children also may experience social stigmatization and discrimination, as well as psychological problems.

In addition to consuming too many calories and not getting enough physical activity, genes, metabolism, behaviour, environment, and culture can also play a role in causing people to be overweight and obese. Identifying determinants of and supporting changes in behaviours and in the environment are likely to be the most effective actions to combat obesity. Key modifiable risk factors are physical activity, sedentary behaviour and diet.

The amount of time spent watching television is another association with obesity in both children and adults. The association with obesity may be mediated in part by the effects of television time on food consumption. The more time children spend watching television, the more likely they are to eat while doing so and the more likely they are to eat the high-calorie foods that are heavily advertised on television.[2]

Obesity increases a person's risk of illness and death due to diabetes, stroke, heart disease, high blood pressure, high cholesterol, and kidney and gallbladder disease. Obesity may increase the risk for some types of cancer. It is also a risk factor for the development of osteoarthritis and sleep apnoea.

Methods / Approach

Cross sectional descriptive study was conducted in a selected urban school of the age group of 6-12 years during a period of 2 months . Stratified random sampling was done to avoid bias .Samples were stratified as per the class and final sample of 44 students from each class of first standard to sixth standard . Total of 264 samples were considered for the study. The instruments used in the present study were Physical instruments such as Stadio meter to check the height of the sample and weighing scale to measure the weight and tool in the form of a semi- structured questionnaire. The reliability of the scale is 0.873.

Questionnaire included objective question to assess sedentary behaviour, physical activity, sleep pattern and dietary habits.

The data obtained is analysed to assess the following:-
• Prevalence of obesity
• Prevalence of overweight

BMI is calculated from the measured height and weight of the child. Prevalence of obesity and overweight are expressed as a percentage of the study population. The children whose BMI is above 85 th percentile to 95th percentile is considered as overweight and 95 th and above are considered as obese. Data collected and analysed and interpreted using descriptive statistics (Frequency and percentage) and inferential statistics chi square and Fischers test. Also association between BMI and socio demographic variables were carried out.

RESULTS

In the present study the study population was divided into three class age group intervals for ease of description. 33% were from the age group of 6-8 years, 33.7% of the samples were in the age group of 8-10 years, 33.3% and were from the age group of 10-12 years of the study population56.8 % were males and 43.2% were females.56.4% of the children were in first order of birth, 42.4% were of second in order and 1.1% were in third and above birth order. 51.1% were vegetarians and 48.9% were non vegetarians.
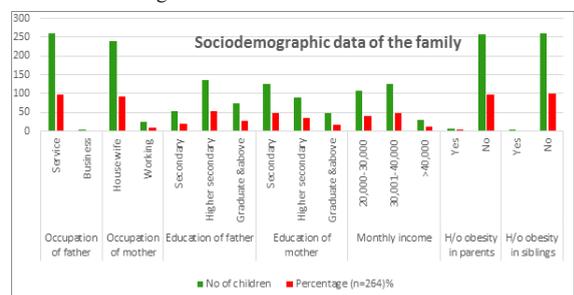

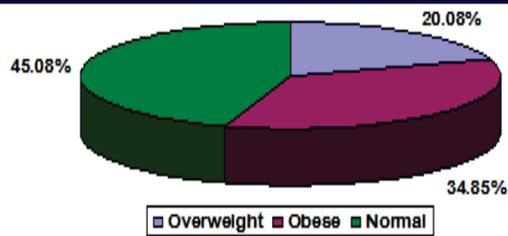**Table 1. Sociodemographic data of the family**

Figure 2: Prevalence of obesity and overweight.

In the present study among the overweight sub-group 15(28%)were in the age group of 6-8 years.18(34%)were 8-10 years and 20(38%)were of the age group of 10-12 years. Among the obese group 24(26%) were in the age group of 6-8 years, 36 (39%) were of 8-10 years with maximum numbers. 32 (35%) were in the category of 10-12 years. Thus there seems to be a rising trend in the prevalence of overweight and obesity with age.

Among the overweight sub-group Males were 27(51%) and females were26(49%).In the obese category maximum were males with 66(72%) and females were 26(28%). Both categories show a higher prevalence among males. In the present study Maximum overweight and obese children were from the higher classes 5-6[th]standard with 20(38%) and 35(38%)respectively. Our study showed that overweight is prominent in vegetarians too 32(60%) Though more numbers of children with non-vegetarian diet were obese- 51 (55%), the difference was not statistically significant. 45(85%) of the mothers of overweight and 83(90%) of the obese children were home makers and 08(15%) and 09(10%) of the overweight and obese mothers respectively were working mothers

History of obesity in parents were not present in overweight children. But in obese category 7(8%) had history of parental obesity. History of obesity in siblings found in one sample in overweight category and 2 among obese category.

Association between BMI and selected socio demographic data
Out of fourteen variables six variables were statistically significant.They are Gender, Educational status of father and Mother, Occupation of father, Total monthly income of the family and h/o obesity in father. The other variables such as age, class, birth order, diet, Occupation of mothe r/o obesity in siblings didn't show statistical significance

CONCLUSION
The study conducted on 264 samples, 34.85 % were obese and 20.08% were overweight and 45.07% were normal weight .No one was found to be underweight. Gender, Educational status of father and Mother, Occupation of father, Total monthly income of the family and h/o obesity in father was found to be statistically significant with BMI. Maximum children had unhealthy dietary habits, More time was spent on computers and TV, less time spent on outdoor games. It is alarming that better life style and food habits need to be followed for better health in children and thus prevent the emergence of life style diseases at an early age.

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