



## A STUDY ON KNOWLEDGE, ATTITUDE AND PRACTICES ON DIETARY HABITS AND PHYSICAL ACTIVITY AMONG ADOLESCENTS STUDYING IN GOVERNMENT SCHOOLS OF GUWAHATI CITY, ASSAM.

### Community Medicine

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### ABSTRACT

**Introduction:** Obesity and overweight is gradually becoming a major public health problem worldwide leading to cardiovascular problems, type 2 DM and adult obesity. The main reason of the problem is change in lifestyle specially the food habit and sedentary life. This study designed for understanding the knowledge, attitude and practice about healthy eating and physical activity among adolescent age group [10-19] years. **Methodology:** The cross sectional study was carried on 360 students from 12 government schools in Guwahati city between June 15<sup>th</sup> to 25<sup>th</sup> August, 2016.

**Result:** Out of 360 students 192 [53.35%] know that family history and 268 [74.44%] students know that less physical activity cause overweight and obesity. Most of the respondents don't know that fast food [54.44%] and carbonated soft drinks [82.22%] can cause overweight

### KEYWORDS

Obesity, physical activity, adolescent

### INTRODUCTION

Obesity and over weight is gradually becoming major public health problem worldwide leading to cardiovascular problems, type 2 DM, joint problems, cancer, gall bladder diseases and adult obesity. All this are associated with long term morbidity and premature death. The main reason of the problem is change in lifestyle specially the food habit and sedentary life.<sup>1,2,6</sup> Today it is estimated that more than 200 million school children are either overweight or obese worldwide.<sup>3</sup>

It is seen that the dietary habits and practices as well as attitude and practices regarding physical activity of early age are carried to the later life influencing the health of that person throughout his life. The study is designed for understanding the knowledge, attitude and practices about healthy eating and physical activity among adolescent age group [10-19 years] in government schools of Guwahati city.

### AIMS AND OBJECTIVES

- To find out the knowledge, attitude and practice related to healthy diet.
- To assess the knowledge, attitude and practice regarding physical activity.

### METHODOLOGY

The study was a cross-sectional study. It was carried out in government schools of Guwahati city. The study period was between 15th June to 15th August to 25th October 2016. Table 3: Distribution of respondent according to their knowledge about the causes of obesity and overweight Table 3: Distribution of respondent according to their knowledge about the the causes of overweight and The target population was adolescent studying in government schools of Guwahati city from 5th to 12th standard.

Based on the prevalence of regular physical activity as 59.8% from the study by Krithigra el al in Chennai and relative error 10%, sample size was calculated as 269. Total 360 students were selected using cluster sampling method. The list of the government schools was collected from the Inspectors of schools, Guwahati, Kamrup district. Then out of total 32 schools 12 schools [clusters] were selected randomly using lottery method. At first, the principals of the selected schools were approached and were briefed about the purpose of the study and permission for the interview of the students is taken. Then 30 students were selected randomly with the help of the class attendance register from each school, among those who were present on the day of data collection. All the students gave consent for the study. Then they were interviewed using predesigned and pretested schedule. So total 360 students were interviewed.

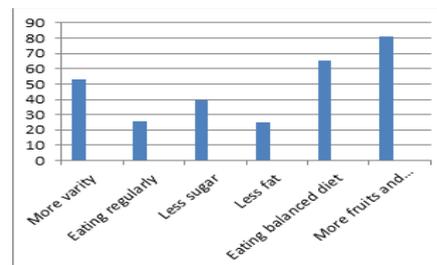
B.G. Prasad scale was used for the socio-economic classification.

Height and weight are measured by using measuring tape and bathroom type of weighing machine respectively. The students who had BMI > 85th but < 95th percentile were taken as overweight and >= 95th percentile of reference population were taken as obese.

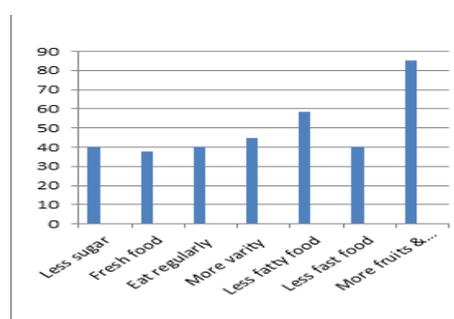
**TABLE 1: Distribution of respondent according to their knowledge about the causes of obesity and overweight**

Category	Number	%
Genetic	192	53.33
Intake of fast food/ junk food	164	45.56
Excessive intake of sweets	90	25
Excessive intake of alcohol	16	4.44
Intake of carbonated soft drinks	64	17.78
Less physical activity	268	74.44
Stress	12	3.33
Other causes	24	6.67

**FIGURE 1: Distribution of respondent according to their knowledge about healthy diet**



**FIGURE 2: Attitude of the respondent towards their own diet**



**TABLE 2: Distribution of respondent according to their fast food intake and body weight**

Category	Not taken fast food last week	1-2 times fast food taken/ week	3 or more times fast food taken /week	Total
Under weight	4 [40%]	6 [60.00]	0 [0.0]	10
Normal	64 [21.05]	160 [52.63]	80 [26.31]	304
Over weight	2 [5.88]	8 [23.53]	24 [70.58]	34
Obese	0 [0.0]	4 [33.33]	8 [60.67]	12
Total	70 [19.44]	178 [49.44]	112 [31.12]	360

**TABLE 3: Distribution of respondent according to their body weight and duration of physical activity**

Category	No exercise	Exercise 1-2days In week	Exercise 3-4days In week	Exercise ≥5days In week	Total
Under weight	0[0%]	0[0%]	8 [80%]	2 [20%]	10
Normal	18 [5.92%]	12 [3.95%]	36 [11.84%]	238 [66.11%]	304
Over weight	26 [76.47%]	8 [23.53%]	0[0%]	0 [0%]	34
Obese	12 [100%]	0[0%]	0[0%]	0[0%]	12
Total	56 [15.56%]	20[5.56%]	44 [12.22]	240 [66.67%]	360

## RESULTS

A total of 360 students participated in this study out of which were 168 [46.67%] males and 192 [53.33%] females. The children were aged between 10-19 years of age [from 5 to 12<sup>th</sup> standards] The prevalence of obesity was 3.33% and overweight 9.44%.

Most of them had knowledge about the risk factors of obesity [table 1]. Most of them know that eating balanced diet [66.67%] and including more fruits and vegetables in diet is healthy [80%] [Figure 1].

From the present study it is seen that most of the students negative attitudes towards less sugary [40%], less fast food consumption [40%] though they have knowledge about these are the risk factors for obesity.[ figure 2].

In this study out of 360 students 112 [31.11%] takes fast food 3 or more times in a week . Most of the overweight [70.59%] and obese [66.67%] obese students consume fast food 3 or more times in a week. [ table : 2].

Among 360 students 240 [ 66.67%] do exercise regularly [ 5 or more times in a week , > 30 minutes per day] but most of the overweight [76.47] and all the obese students are not engaged in any kind of exercise like leisure time physical activity [ e.g, walking , dancing , gardening ,hiking , swimming ] , transportation [ walking or cycling ] ,household chores , sports and planned exercise etc. [[table 3]

## DISCUSSION

This is a cross sectional study which was undertaken to assess the knowledge, attitude and practices in school going adolescents towards healthy eating and physical activity.

In this study the prevalence of overweight 9.44 was and obesity 3.33 which was less than the study done by Ravi Rohilla et al in Rohtak city in North India in 2012. In their study prevalence of overweight was 11% and obesity was 5.7%.This disparity may be because of the fact that they had included government and private schools.<sup>9</sup>

Most of the adolescents have the knowledge that physical inactivity and genetic factors are the risk factor for obesity but most of them have no idea about the other important risk factors associated with overweight and obesity like intake of fast food, excessive intake of

carbonated soft drinks etc. The results were similar to the study done in Tanzania, by Marina A Njelekela where only 45.4% had knowledge about the risk factors of overweight and obesity.<sup>11</sup>

Most of the students had the knowledge about beneficial effect of balanced diet and inclusion of more fruits and vegetables in their diet but they did had knowledge about other aspects of healthy eating like eating regularly, having less sugary and less fatty diet.

In the present study it was seen that the students had negative attitude towards less sugary food consumption as well as less fast food consumption which also reflects their knowledge about the effects of these foods on the body weight. Similar study was done in Mangalore city in Southern India on high school boys by Nitin Joseph et al, where the students [62%] had awareness about the harmful effects of fast food consumption and they had the perceived need to control its usages was noticed.<sup>10</sup>

In the same study the 97.3% were fast food users out of which 14.4% consumes it every day but in our study the fast food consumption was 75.56% which was less than the study done earlier. The difference may be because of the fact that they have included boys only .<sup>11</sup>

Out of 360 students 240 [66.67%] do regular exercise [exercise 5 more times in a week] but most of the obese and overweight adolescents don't do exercise at all. A multi centric study was done in Chennai , Goa and Bangladesh by Krithiga Shridhar et al on children aged 5-14 years , there 59.8% students in Chennai and 78.8% students in Goa were found to do adequate physical activity i.e. >1 hr of leisure physical activity.<sup>12</sup>

## LIMITATIONS

Only government schools were taken in the present study .

## CONCLUSION

The students have low knowledge about the risk factors associated with obesity and their attitude and practices also reflects the same. They do not have the proper knowledge about the health hazards related to fast food and carbonated soft drink consumption. Proper nutritional knowledge should be given to the students and attitude and practices should be changed regarding food and create a positive attitude towards physical activity by encouraging them. Intervention should be taken in all levels of society from community to government to educate the children at school and community level.

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