



A Correlative Relation on the amount of Calories Consumed by Students of Different Age Groups – A Survey

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Received: 15-02-2017; **Revised:** 19-03-2017; **Accepted:** 24-04-2017.

ABSTRACT

Since students of different age groups consume varying amounts of calories a trend may be found in the amount of calories consumed by students of different age groups in accordance with various factors such as stress. The amount of calories consumed affects the physical as well as mental wellbeing of students so it is important to create awareness about the importance of a well-balanced diet. The aim of the study is to find correlation between the amount of calories consumed by students and age group.

Keywords: Age group, Calories, Diet, Stress, Correlation.

INTRODUCTION

The main objective of this study is to find a correlation between the amount of calories consumed and age group. Since students of different age groups consume different amounts of calories, a trend may be found in the amount of calories consumed at different age groups. This study can also be useful in finding how various factors such as stress affects the amount of calories consumed by students in various age groups. In a study done by Millwood on trends in snacking among U.S. children it was found that although desserts decreased in 2003–06, they remained as the main contributors to snacking calories in 2006. The second main source of snacking energy was salty snacks (chips, crackers, etc.), which experienced the largest increase in the past 3 decades. Candies and fruit drinks also increased over the periods covered. We observed an important shift from higher intake of fresh fruit in 1977 to more frequent consumption of fruit juice in 2006. Sweetened beverages showed little change over this period, but was found to be the top third contributor to snacking energy in 2006.¹ There was also another study by Parisila Bhawan called an analysis of changing food consumption pattern in India. The study reported that despite rapid economic growth in India during the past decade, India's average per capita calorie and protein intake has grown only modestly, although the per capita fat consumption has registered a higher growth. Calorie and protein source in the Indian diet is diversifying with fruit/vegetable and animal-based food share increasing and cereal and pulses declining.² A study which looked at the trends in beverage consumption among high school students in the United States found that during 2007–2015, daily soda consumption decreased significantly from 33.8% to 20.5%. During 2007–2011, daily milk and juice consumption did not significantly change, but during 2011–2015 daily milk and juice consumption decreased from 44.3% to 37.4% and from 27.2% to 21.6%,

respectively. Although a decrease in daily soda consumption is a positive change, soda consumption remains high³. Adults between 20 to 29 years of age had significantly greater consumption of fast food, approximately four times greater, as compared to those aged 55 years and older⁷. College students aged 19 to 25 years have reported that the top reasons reported for fast food consumption were convenience and cost (convenience being to top reason)⁸. A similar study concluded that college students aged 19 to 24 years were consuming fast food for convenience (which was in the top two reasons for consuming fast food) and males were likely to choose fast food due to the cost⁹. Males tend to consume more fast food items per week than females^{10,11}.

MATERIALS AND METHODS

A survey was conducted online using survey planet and the data collected was statistically analysed. The survey was taken by 150 students out of which there were 72 male students and 78 female students. The main criteria taken were age group. The age groups taken were 13-16, 17-20 and 21-24. There were 50 people in each age group who had taken the survey. The survey contained 22 questions. The questions were posed in such a way that the data collected would be easy to process and the behaviour of the students during various students and how it affects their diet can be understood. Some of the questions posed in the survey are do you eat more food during stressful times like exams, what do you prefer to eat when you go out with your friends, while watching tv or playing video games do you eat junk food etc. Some of the questions were more direct like have you gained weight since you last checked, how many times a day do you eat on average, how many calories do eat on average etc. Two of the questions were directed at what they thought about the amount of calories taken in compared to the present and the past.



RESULTS

The survey conducted was on students based on their age groups. The survey included 22 questions about different eating habits. The survey was taken by 150 students from which 50 students were present in each age group. The data from the survey is shown below:

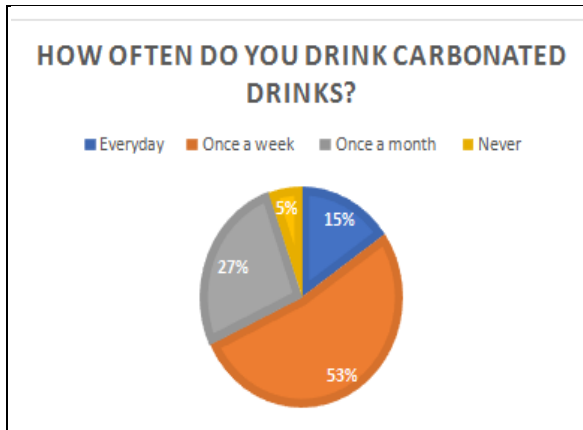


Figure 1: The graph shows the average amount of times a student drinks carbonated drinks.

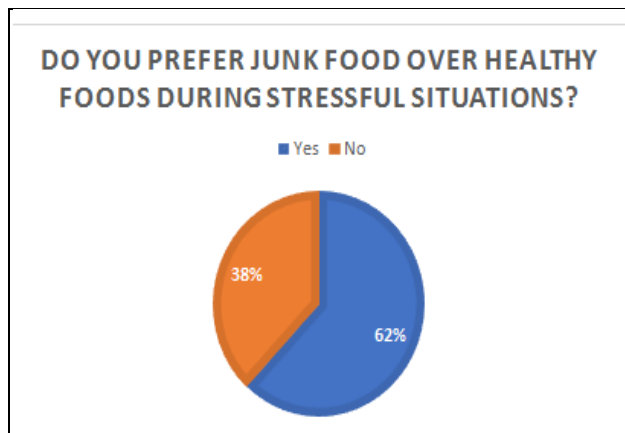


Figure 2: The graph shows whether or not students prefer junk food over healthy foods during stressful situations.

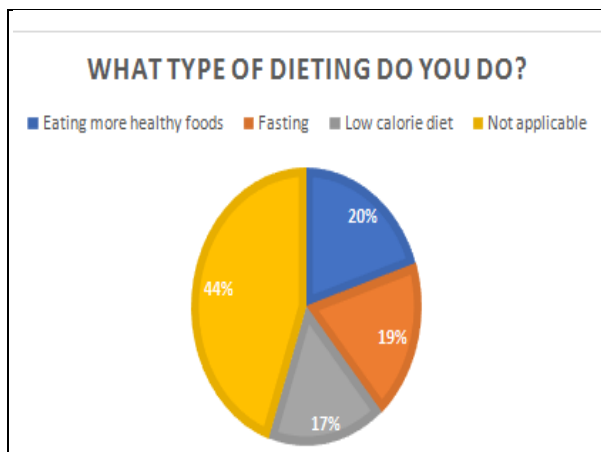


Figure 3: The graph shows which type of dieting students do.

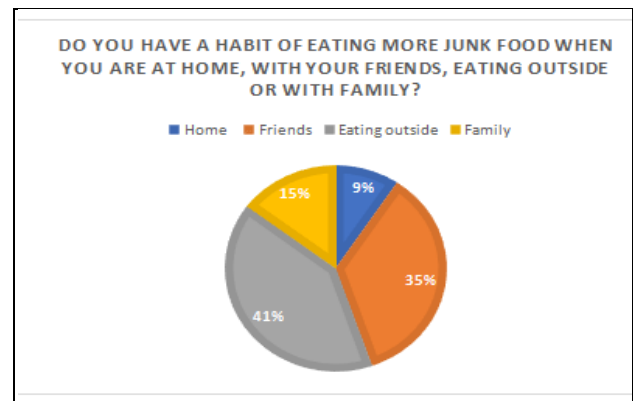


Figure 4: The graph shows where students have the habit of eating more junk food.

The survey conducted had 50 students within each age group. It was found that most students generally don't eat more food during stressful situations like exams but that more of them actually skip meals during stressful times. It was also found that 53% of the students have carbonated drinks atleast once a week (Fig.1). It was found that 41% of the students who took the survey ate more junk food when they were eating outside compared to when they were with their friends or family or at home(Fig.4). It was found that 48% had gained weight since the last time they had checked their weight.It was also seen that more people preferred to eat more healthy foods as a diet compared to fasting or other diets.62% of the students also reported that they preferred junk food over healthy foods during stressful situations(Fig.2).59% felt that they ate less junk food as they grew. 46% students reported that they had 2000-3000 calories on an average day. 55% felt that children nowadays eat more junk food comparatively.

DISCUSSION

Consumption of fast food, prevalence of obesity, and related health problems have risen greatly over the past several decades⁴. In 2006, one out of every five United States dollars spent on retail shopping was accounted for by food and beverage purchases⁵.

In a study conducted by Myung-SooKothey found that more than half of the subjects responded to snacks 1-2 times per a day while beverages were a significant part of the snacks⁶. The results of this study are similar to the present study in female students.

In another study on the cost and calorie analysis of fast food consumption in college students, it was found that students without a university meal plan probably did not consume food from dining halls on a regular basis. These students may have spent more money on fast food due to convenience. Research sup- ports that convenience is one of the primary reasons for fast food consumption among college students^{8 9}.It was also found that male students spent more on fast food compared to female students. This is similar to the results of the present study¹².

CONCLUSION

A correlation can be seen between the amount of calories consumed and age group. From the analysed data we can conclude that as students get older and the amount of stress increases, students lean towards junk food compared to healthy food. It can also be seen that more male students lean towards junk food than female students. This data will be useful in creating awareness about the importance of a well-balanced diet as well provide vital information about the different factors that affect the amount of calories consumed.

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Source of Support: Nil, Conflict of Interest: None.

