

**Original Article**

**ASSESSMENT OF THE NUTRITIONAL BEHAVIOUR AMONG COLLEGE STUDENTS-A SURVEY**

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**ABSTRACT**

**Objective:** To assess the nutritional behaviour among college students.

**Methods:** A prospective observational survey was conducted randomly among college students in Guntur. A self-administered data collection form was designed to understand the nutritional behaviour of the subjects.

**Results:** A total of 300 subjects were included in the study, among them 225(75%) were females and 75(25%) were males. The survey revealed that most of them skipped their meals. A majority of 184(61.33%) students opted for high-fat diet and 268(89.33%) opted for starch-rich foods. A total of 222(74%) students usually eat four different varieties of vegetables but only 71(23.66%) of them eat fruits in each week.

**Conclusion:** From this study, it was evident that majority of students have poor dietary habits. Lack of awareness on balanced diet and due to their busy schedules, teenagers were not maintaining a proper diet. This could be reduced by bringing minimum awareness on dietary habits to them. Taking proper diet is very essential to reduce the risk of diseases in future and to improve nourishment.

**Keywords:** Balanced diet, Nutritional status, Improper diet, Skipping meals, Poor nutritional effects

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**INTRODUCTION**

A balanced diet is a way of eating all of the right nutrients that your body needs in order to be healthy. Healthy eating contributes to overall healthy growth and development, including healthy bones, skin, and energy levels; and a lowered risk of dental caries, eating disorders, constipation, malnutrition, and iron deficiency anemia [1]. It is also important because your organs and tissues need proper nutrition to work effectively. Without good nutrition, the body is more prone to disease, infection, fatigue, and poor performance [2]. In recent decades, important socio-economic changes in most developed countries have undeniably affected the eating habits and level of physical activity of citizens. This trend was clearly illustrated by the current increase in illnesses directly or indirectly related to the increase in overweight and obesity [3]. It has been established that a poor nutrition and insufficient physical activity are the main risk factors for various diseases. Some research studies suggest that any type of physical activity reduces the risk of developing coronary heart disease, stroke as well as various metabolic disorders like hypertension, diabetes and improves the patient quality of life [4].

Nutrition is an intake of food, considered in relation to the body's dietary needs. Good nutrition is an adequate, well-balanced diet combined with regular physical activity. It is a cornerstone of good health. Poor nutrition can lead to reduced immunity, increased susceptibility to disease, impaired physical and mental development, and reduced productivity. Many of us are in the habit of eating too many carbohydrate-rich foods and not quite enough protein-rich foods, so our intake is out of balance. In addition to this, often the high carbohydrate foods that we choose have been so processed that they contain very few vitamins and minerals. Eating too much carbohydrate leads to diabetes. Leading cause of bad nutrition in college students is eating fast food which affects them to become obese and malnourished. Consumption of junk food has increased manifold, which has led to a number of diseases related to nutritional deficiencies [5]. Another biggest mistake that students make in their dieting habit is to skip meals. Skipping meals on a regular basis particularly breakfast disturbs body metabolism.

According to the Food and Agriculture Organization of the United Nations, poverty and lack of resources are the two main causes that contribute to the estimated 925 million people worldwide suffering the effects of malnutrition and its companion diseases [6]. Getting regular exercise, adequate sleep and balancing the demands of work with relaxation help to provide a balanced, healthy lifestyle. More emphasis in one area while neglecting the, due to stress, poor health and the inability to cope up with the demands of daily life. Stress and nutrition have always been linked to each other and someone with a healthy and balanced diet is likely to be far less stressed than someone with poor diet [7]. Nutrition education is one of the important practical aspects. It plays an important role in raising public awareness and ultimately the health of society [8]. Awareness camps on nutrition and balanced diet will help the public to maintain a proper diet. On the other hand, some researchers have shown that most students are not familiar with healthy foods needed for their body in different conditions [9, 10] and need to have nutrition education programs. The present study was conducted to understand the nutritional behaviour of the college students.

**MATERIALS AND METHODS**

The survey was conducted to assess the nutrition status in college students by using a self-administered questionnaire. This was designed to allow the subjects to assess the nutritional value of their diet. The survey was carried among 300 subjects in different places of Guntur city in the state of Andhra Pradesh. The survey was conducted among people aged between 17 to 23 y and estimated the results. The consent form was given to subjects. The survey to the maximum targeted the subjects in relation to their dieting habit like how often they skip meals, how often they include a portion of vegetables and fruits in their diet, how often and how much of fats, sugars, starchy foods, salt, drinks and alcohol they consume.

**RESULTS AND DISCUSSION**

A total number of subjects was 300. Out of which female participants were dominated 225 (75%) and male participants were 75(25%). This is depicted in fig. 1.

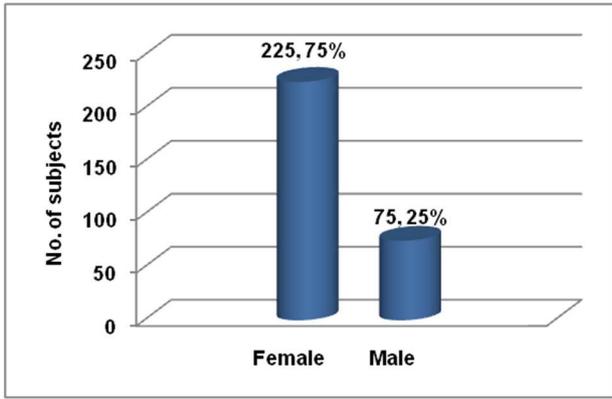


Fig. 1: Subjects according to their gender

Fig. 2 eating habits among the college students: How often they skip their breakfast, lunch and dinner

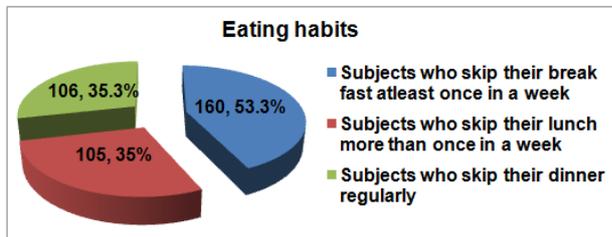


Fig. 2: Subjects according to their eating habits

Fig. 3 Varieties of food items and their frequency of inclusion into their meal

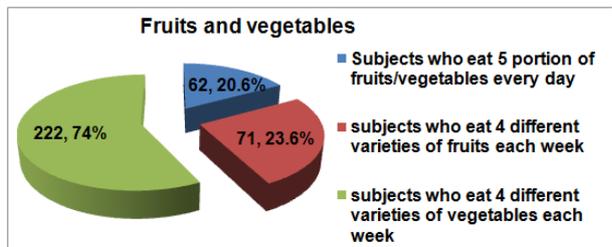


Fig. 3: Subjects according to their habit of eating fruits and vegetables

Fig. 4 Choice and frequency of inclusion of fat content into their food among the students

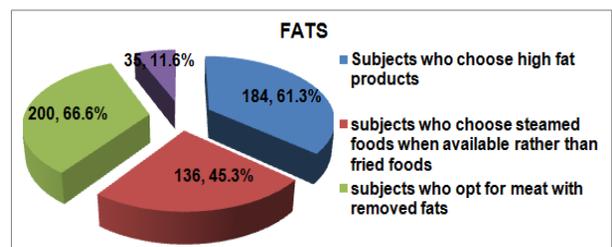


Fig. 4: Subjects according to their habit of eating fats

Fig. 5 Choice and frequency of inclusion of starchy foods into their meal among the students

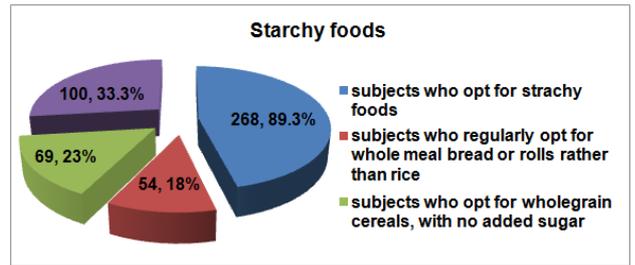


Fig. 5: Subjects according to their habit of eating starchy foods

Fig. 6 Habit of inclusion of sugar foods into their meal among the students.

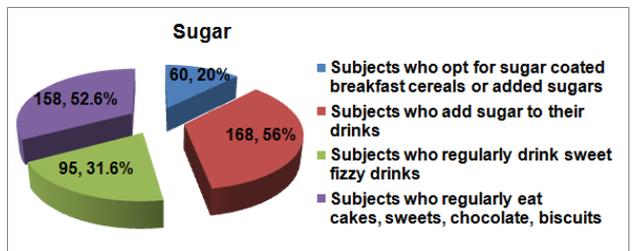


Fig. 6: Subjects according to their habit of eating sugar foods

Fig. 7 Habit of consuming salt and salt foods among the students as part of their meal.

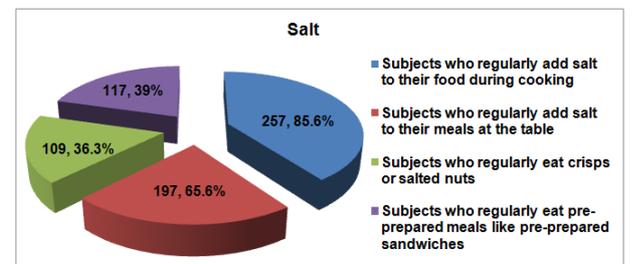


Fig. 7: Subjects according to their habit of eating salt foods

Fig. 8 Drinking habits and variety of drinks consumed by the students.

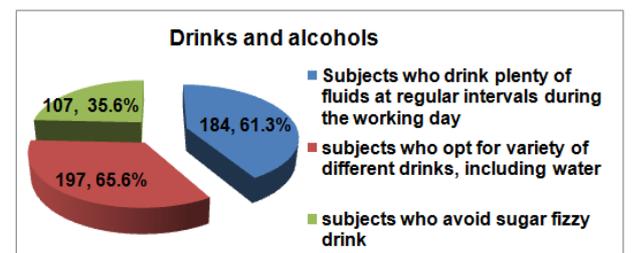


Fig. 8: Subjects according to their drinking habits

In the present study among students, it was evident that they usually skipped their meals on regular basis, particularly breakfast 160(53.33%) students, dinner 106(35.33%) and then lunch 105(35%) members. Skipping meals especially breakfast, disturbs the body's metabolism and leads to diabetes. According to O'Dea in 2005, which was about the education strategies for the improvement of body image and prevention of eating problems, showed that 85% of men and 87% of women, who are overweight decide to go on a diet to lose weight. In addition, it also showed that 13% of men and 20% of women refuse to eat breakfast [11]. In 2001 it was also reported that the students don't have the necessary information and training about weight control, nutrition needs and diet [12]. In this study 222(74%) of subjects usually eat four different varieties of vegetables but only 71(23.66%) of them eat fruits in each week. Consuming at least 5 portions of fruits and vegetables a day can help to reduce the risk of coronary heart disease. According to the survey conducted (special Euro-barometer, pub-2006) on health and food, almost 52% of subjects mostly preferred more fruits and vegetables. In this survey 184(61.33%) subjects opted for a high-fat diet. Consuming too much fat, in general, may contribute to coronary heart disease. Instead of fat-containing foods, fibre-rich foods must be preferred. According to the final report of the survey conducted by International Food Information Council Foundation (2015), almost 63% opted for fibre-rich foods [13]. In this study, 136(45.33%) students had chosen steamed food rather than fiber food. However, fiber helps the digestive system function properly and prevents bowel disorders like constipation. Early indicators of atherosclerosis, the most common cause of heart disease, begin as early as childhood and adolescence. Atherosclerosis is related to high blood cholesterol levels, which are associated with poor dietary habits [14]. By consuming the right proportions of these nutrients like carbohydrates, proteins, fats and fibers we can help the damaged cells to rejuvenate and carry out their normal functions to lead a healthy life [7].

Starch foods contain carbohydrates, which provide energy. A total of 268(89.33%) students opted for starch-rich foods according to this survey. In addition, 158(52.66%) of the total opted for sugar-containing foods including soft drinks, sweets, jams, cake, puddings, pastries and ice cream etc these foods contains high synthetic sweetening agent which increased the risk of diabetes. The study conducted by Krishna prabha et,al; reported that there was a decreased risk of diabetes by incorporating the natural sweetening agent "stevia" to some value-added foods like jams, ice creams, chocolates [15]. According to the report of International Food Information Council Foundation (2015), almost 61% opted for added sugar [16]. Having foods and drinks that contain sugar, mainly at meals times rather than in between meals, will help to reduce the risk of tooth decay. 36 gms for men and 25 gms for women is sufficient daily amount for sugars according to guidelines [17]. Reducing amount of salt in the diet can help keep blood pressure normal or down, which in turn reduces the risk of having a heart attack or stroke. 6 gms for men and women is sufficient amount for salt intake. In this survey 257(85.66%) subjects add salt to the foods. According to health and diet survey by FDA, 2014, almost 89% opted for high salt diet [18]. Drinking plenty of fluids may reduce the risk of dehydration, especially water reduces weight. Almost 30-59% of US adults who try to lose weight increase their water intake [19]. According to WHO study the reason behind poor nutrition is the development of psychosocial changes, like increasing need for independence and a desire to make lifestyle choices that conform to peer ideals and differ from those of the family, teenagers. These persons are at risk of poor nutritional status [20]. Finally, by conducting the present survey we noticed that due to lack of awareness students were not taking proper diet so, creating minimum awareness among people about nutrition is very essential to reduce the risk of diseases in future and improve their nourishment.

#### Limitations of study

Awareness could have been provided to the sample. This study could have been done in large sample size.

#### CONCLUSION

A balanced diet is one that gives the body the nutrients to needs to function properly. In order to get the proper nutrition from the diet,

we have to include the large portions of our daily calories from: fresh fruits, vegetables, whole grains etc. From our study it was evident that majority of students opted for junk food because of their busy schedule which leads to obesity and then increased risk of coronary heart diseases. Most of the students usually skip their meals on regular basis that may disturb the body metabolism and increases the future risk of diabetes. Females are mostly abstemious in their eating habits for maintaining physical beauty that are at a greater risk of poor nutrition. In conclusion, due to lack of awareness on diet, students are not maintaining proper dietary habits. This can be reduced by bringing minimum awareness among people. Taking proper diet is very much essential to reduce the risk of diseases in future and improve nourishment.

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#### AUTHORS CONTRIBUTIONS

1. Preparation of questionnaire-Naga Swathi Sree Kavuri, Sk. Shafiya begum.
2. Data collection-Divya Polavarapu, Naga Swathi Sree Kavuri, Mohan Chand Uppalapati.
3. Preparation of publication work-Sk. Shafiya begum, Naga Swathi Sree Kavuri.

#### CONFLICT OF INTERESTS

Conflict of interest declared none

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