Dietary habits amongst medical students: An institution-based study

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Abstract

Introduction: In recent times, with the increasing burden caused by the lifestyle diseases on the health sector, there has been a renewed interest in the relationship between food and health. Research regarding nutritional status in college students in western Maharashtra, India, has been found lacking. Therefore, this study was undertaken to ascertain the dietary habits in the undergraduate students of a health institute. Materials and Methods: This questionnaire-based study was conducted amongst 130 students from a health university regarding their dietary attitudes and lifestyle practices. The students had the option of choosing more than one answer based on the nature of the question. All the data were tabulated and relevant inferences were drawn. Results: A total of 130 students comprising 74 girls and 56 boys from a health university participated in the study. Daily consumption of fruits and vegetables was only 1–2 portions for 98 (75%) of the participating students. Twenty-four (18%) participants were noted to be underweight and 11 (8%) students were either overweight or obese. Conclusion: Thus, the findings of the study indicate that the diet and nutritional aspects of our future medical health professionals should be researched in further details and timely interventions initiated for ensuring the knowledge and practice of the WHO principles regarding the same to be incorporated.

Keywords: Diet, medical students, nutrition

Introduction

The intricate relationship of food and health has been perfectly illustrated by Hippocrates more than 2500 years ago, when he stated, “Let food be thy medicine and medicine be thy food.” Since ages, the role of diet and health has been the subject of intense research. In recent times, with the increasing burden caused by the lifestyle diseases on the health sector, there has been a renewed interest in the relationship between food and health.

In this regard, the medical practitioner is regarded as the epitome of correct food habits and lifestyle. There is a general perception amongst the common masses that the students of health sciences have a greater knowledge about the correct dietary habits and healthy lifestyle as compared with nonmedical students. This is significant as they are the future physicians and the students who personally adopt a healthy lifestyle are likely to positively influence their patients. However, studies have shown that medical and paramedical students especially who stay in hostels away from their home are susceptible to irregular dietary habits, lack of exercise, and addiction.[1,2]

Research regarding nutritional status in college students in western Maharashtra, India, has been found lacking. Therefore, this study was undertaken to ascertain the dietary habits in the undergraduate students of a health institute.

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Materials and Methods

Study design
After obtaining the institutional ethical clearance and permission from the authorities, a cross-sectional survey was conducted for 100 medical students at a health university in western Maharashtra, India. The participants were enrolled for the study by convenience sampling after they were informed about the purpose of the study and the method of completing the questionnaire.

Study participants
Students who were enrolled in the university and well versed with English were included in the study. Students with a clinically diagnosed chronic illness or on a prescribed medication were excluded.

Data collection
A self-reported structured questionnaire was designed incorporating sociodemographics, dietary attitudes, and lifestyle practices. The students had the option of choosing more than one answer based on the nature of the question. All the data were tabulated and relevant inferences were drawn.

Results
A total of 130 students comprising 74 girls and 56 boys from the health university participated in the study. All the students were staying in the hostel of the university. Eighty-three (68%) responders out of 130 said that they had breakfast daily. However, only 13 participants (10%) said that they had a fruit daily in our study. Daily consumption of fruits and vegetables was only 1–2 portions for 98 (75%) of the participating students. Out of 130 students studied regarding snacks preference, fried snacks were the most popular with 51 (39%) students, followed by various bakery items by 30 students. Only 9 (7%) students preferred salads and soups for snacking.

Regarding the BMI calculated for the study participants, 24 (18%) participants were noted to be underweight and 11 (8%) students were either overweight or obese out of the total 130 participants as depicted in Table 1.

Discussion
This study aimed to evaluate the eating habits of medical students of a health university in western Maharashtra. Diet and nutrition are important aspects of medical practice, and the budding medical professional is expected to lead by example.

Breakfast is often thought to be the most important meal of the day as it is known to provide energy for the brain and improve learning. It is also known to contribute significantly to the total daily energy and nutrient intake. Skipping breakfast may affect performance during the rest of the day.\(^\text{[3]}\)

In our study, it was heartening to note that 83 (68%) responders replied in positive regarding daily breakfast consumption. These findings are similar to the descriptive cross-sectional study conducted by Aekuaku-Dogbe and Abaidoo among 317 medical students at the University of Ghana Medical School, Korle Bu-Accra where they found that the overall breakfast skipping among the students was 71.92%.\(^\text{[3]}\)

Quality of food consumption is as important as the correct servings and quantity. Research and publications worldwide are in support of increasing scientific evidence that adequate consumption of fruits and vegetables decreases the risk of major chronic diseases. Knowledge of actual consumption of fruits and vegetables among future medical practitioners assists in framing intervention to achieve potential health benefits for their future life.\(^\text{[4]}\)

Regarding incorporation of fruits and vegetables in the daily diet, 98 (75%) of the participating students had only 1–2 portions per day with only 13 participants (10%) having a fruit daily. These findings are comparable to those of the study conducted in 2014 in Saudi Arabia, where majority of the students (78%) had low consumption from fruit and vegetable and only 22% consumed the recommended daily intake.\(^\text{[5]}\)

In a similar study carried out amongst 494 undergraduate students at the University of Malta in 2011, half of the students had less fruit and vegetable servings per day, one-third 2–4 servings, while only 15% had 5 or more servings.\(^\text{[6]}\) All these figures are lacking and fall short of the five daily servings of fruit and vegetables as recommended by the World Health Organization.

Regarding choice of healthy foods for snacking, only nine (7%) students preferred salads and soups in our study, with the rest opting for junk food including fried snacks and bakery items. These observations resemble that of a study conducted by Faculty of Medicine, Mansoura University, Egypt which showed that two-thirds of the 908 medical students included in the study consumed fast food regularly.\(^\text{[7]}\) These facts are alarming as the high prevalence of fast/junk food preference and consumption by future health-care practitioners poses a serious health concern.

Our study showed obesity in 2.3% of the study population. Similar value of 6.1% obese female medical students was seen in the study by Garipçoğlu et al. on 2012.\(^\text{[8]}\) Other studies have shown higher figures with findings of 21 (22%) obese amongst the 93 preclinical students in a Malaysian medical university in a

| Table 1: Distribution of the study participants with respect to their body mass index |
|-----------------|-------|-------|------|-------|
| BMI             | Boys  | Girls | Total|
| Underweight     | <18.5 | 6     | 18   | 24    |
| Normal weight   | 18.5-24.9 | 41   | 54   | 95    |
| Overweight      | 25-29.9 | 6    | 2    | 8     |
| Obese           | >30   | 3     | 0    | 3     |
| Total           | 56    | 74    | 130  |

BMI: Body mass index.
study in 2017 and 25 (10.2%) preobese, and 51 (20.9%) obese out of 244 medical students from four medical colleges of Lahore in a study in 2016.\(^9\),\(^{10}\)

Thus, the findings of the study indicate that the diet and nutritional aspects of our future medical health professionals should be researched in further details and timely interventions initiated.

There are significant implications of the findings of this study for primary-care physicians. General practitioners (GPs) provide coordinated holistic health care to individuals and families in their communities.\(^{11}\) Studies have shown that attitudes of the physicians toward nutrition and nutrition care are significant predictors of physicians’ daily nutrition practice.\(^{12}\)

Nutrition care should be an integral part of GPs’ daily work with patients. The primary health-care setting has already been identified as an ideal setting for implementing chronic disease management programs, including the provision of nutrition care.\(^{13}\)

The findings of the study indicate that the knowledge and practice of these students regarding healthy diet and nutrition does not bode well and is a cause of concern as these future primary-care physicians lack adequate preparation as far as this vital component of modern medical practice is concerned. It is essential to bridge this lack in knowledge and practice of correct nutritional and dietary practices since the significance of these subjects in prevention of obesity and other lifestyle diseases is well known.

**Conclusion**

Healthy dietary habits among medical students are even more important as they are future physicians and the students who personally ignore adopting healthy lifestyle are more likely to fail to champion health promotion opportunities for their patients.\(^{14}\)

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**Conflicts of interest**

There are no conflicts of interest.

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