



Research Article

Prevalence of Overweight Among Students of Sargodha Medical College Due to Increased Consumption of Fast Food

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Abstract

Objective: To determine the prevalence of overweight among the students of Sargodha Medical College due to increased fast food consumption.

Methods: A sample of 100 students (50 males and 50 females) was taken on random basis. Data was collected using a questionnaire that inquired about their eating habits, food choices and level of physical activity. The prevalence of overweight and prevalence of obesity was based on Asia Pacific guideline of Body Mass Index (BMI). Status of overweight was found to be significantly associated with frequenting fast food intake.

Results: This study provides evidence of increasing trend in overweight among medical students consuming fast food regularly. Obese and overweight individuals had significant family history. A combined initiative from family, Public health experts and Government is much needed to tackle this public problem.

Conclusion: Obese and overweight individuals had significant family history. A combined initiative from family, Public health experts and Government is much needed to tackle this public problem.

Keywords: Overweight, Fast food, Medical students, BMI.

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INTRODUCTION

In recent years, the incidence of overweight and obesity has been affecting the both developed and developing countries including Pakistan. In Pakistan, there is a nutritional shift from a simple carbohydrate diet to fast food diets, especially among young people like medical students (1). In 2010, obesity and overweight were identified as one of the 10 major health indicators (2). Excessive and abnormal fat accumulation are termed as overweight and obesity, which can impair health and lead to different complications (3).

Body mass index (BMI) is a general indicator of weight-height and is commonly used to classify obesity and overweight in adults (4). WHO defines obesity and overweight as follows; Overweight BMI greater than or equal to 25; And led to sedentary lifestyles and unhealthy eating habits (5). Physical activity and eating disorders are associated with a risk of medical students losing their weight. Different studies examined the frequency of fast-food intake, energy consumption, and dietary intake with BMI (6).

Obesity in children, youth and adults is one of the most serious public health problems of the 21st century. The

prevalence of obesity in children worldwide has increased significantly over the past three decades. Obesity is a multifactorial condition and has been described as a phenotype of many pathologies (7).

According to the National Institutes of Health (NIH), majority of these abnormalities of obesity and overweight are caused by fast food (8). Fast food is a high-calorie or calorie-rich diet that does not contain micronutrients such as vitamins, minerals, amino acids, and fiber but is high in energy (calories) (8). Fast-food consumption is associated with total caloric intake; The total consumption of meat, whole grains, sweetened beverages, dairy, fiber, cholesterol, sodium and added sugar; Percentage of calories of total fat, saturated fat and trans fatty acids (9).

Hence, these foods that has poor nutritional value is considered unhealthy and may be called as junk food. 'Junk food' is an informal term applied to some foods which are perceived to have little or no nutritional value, but which also have ingredients considered unhealthy when eaten regularly, or to those considered unhealthy to consume at all (10).

Therefore, this nutritious food is considered unhealthy and is called junk food. 'Junk food' is an informative term applied to



certain foods, which are considered to have little or no nutritional value, but are often considered unhealthy or unhealthy to eat on a regular basis (11). Due to the popularity of these foods in this era of urbanization, there is fast preparation and convenience to finish the food. Good taste and attractive forms are crucial in attracting people, especially adolescents. The availability of fast food restaurants has led to an increase in fast food consumption. Additionally, teens are getting less of their energy consumption from home and more restaurants. This behavior is reasonable when you consider that fast food is cheaper than healthy foods such as fruits and is powerful for weight loss. Therefore, the position of fast food restaurants in urban areas contributes to aging (12).

One of the hazards of fast food is that it allows people to eat without planning. Concentrated sugar levels cause dental cavities and type 2 diabetes mellitus. High cholesterol and increased salt intake leads to blood pressure, heart attack and heart disease in a chain. Allergies to flavors and colors can also cause asthma, rashes and hypersensitivity (1).

This study is to assess the frequency of overweight among medical students due to junk food in medical colleges based on Asia Pacific BMI guideline.

METHODOLOGY OF THE STUDY

Setting

This descriptive and cross-sectional study aimed was conducted in Department of Community Medicine, Sargodha Medical College Sargodha during 1st May to 30th July 2017.

Study Population

Our study cohort comprised of healthy medical and non-medical male and female students of different departments. All subjects were having age more than 18 years (18-26 years). Participants who were interested in participating in the study were explained properly and their consent was taken prior to the survey.

Sample Size

A total of 100 students were included in the study and sampling technique was simple random sampling.

Data Collection

Data was collected with the help of questionnaire distributed among the students in April and May, 2017. The study subjects were informed that the information collected would be anonymous; and participation would be totally on volunteer basis. Male and female students were provided the same questionnaire. Students' status as boarders or non-boarders, and age were noted. Questions were asked regarding frequency of fast food, dietary habits and association of certain food and drinks with overweight.

RESULTS

A sample of 100 medical students was inducted. Our study found that 33% students were having weight between 46-55 kg (Table 1). When we categorized our study population, we observed majority of students 62% have height 5.1-5.5 feet (Table 2). About 54% students have no habit of daily exercise (Table 3); and 45% subjects having routine to take breakfast daily, 32% subjects had no habit to take breakfast while 23% subjects occasionally take breakfast (Table 4). It is worth

mentioning that about 52% population takes three times meal in a day and even take snacks between meals (Table 5 and 6). It is also worrisome that about 78% students take fast foods from one to three times in a week (Table 7). We reported obesity and overweight in Table 8 (with BMI of more than 25). Out of them 85% male and 15% female were overweight.

Table 1. Weight of study subjects.

Categories (kg)	Frequency	Percentage
35-45	8	8
46-55	33	33
56-65	29	29
66-75	30	30

Table 2. Height of study subjects.

Categories	Frequency	Percentage
4.5-5.0	5	5
5.1-5.5	62	62
5.6-6.0	29	29
6.1-6.5	4	4

Table 3. Frequency of people exercise daily.

Categories	Frequency	Percentage
Yes	26	26
No	54	54
Off and No	20	20

Table 4. Frequency of people taking breakfast daily.

Categories	Frequency	Percentage
Yes	45	45
No	32	32
Seldom	23	23

Table 5. Frequency of people taking meal in a day.

Categories	Frequency	Percentage
1	5	5
2	35	35
3	52	52
4	8	8

Table 6. Frequency of people taking snacks in between meals.

Categories	Frequency	Percentage
Yes	52	52
No	20	20
Seldom	28	28

Table 7. Frequency of people taking fast food in a week.

Categories	Frequency	Percentage
None	5	5
1	40	40
2	25	25
3	18	18
4	7	7
>4	5	5

Table 8. Body Mass Index (BMI)

Categories	Frequency	Percentage
Underweight	8	8
Normal	45	45
Overweight	40	40
Obese	7	7



DISCUSSIONS

Worldwide, a significant increase in overweight and escalation affects people of all ages, genders and ethnicities. There is plausible evidence that concentrations of foods, such as fat or sugar, increase energy density, and that eating, eating, and eating behaviors promotes unhealthy weight loss through inactivity rather than energy intake (2). About 234.4 kJ of daily energy intake and body weight was associated with only one fast food meal per week, with an average weight greater than 72 kg (3).

College years are the most critical time in life when you can adopt a healthy and unhealthy lifestyle and conceded later in the life (4). Overweight and obesity influence more strongly in the increased incidence of certain diseases, if these abnormalities rise in early age. Independent to overweight and obesity, eating disarrays, stress, lack of exercise and addiction are the important risk factors that are inadvertently present among medical and para-medical students who live in hostel away from homes (5).

In Asians, obesity is associated with a metabolic syndrome such as type 2 diabetes mellitus. One study in India reported increasing frequency of overweight and obesity is associated with multiple risk factors in metropolitan population (6). Eating a healthy diet, regular physical activity, and smoking can prevent heart disease, heart attack, type-2 diabetes, and 40% cancer. In addition, the incidence of type-2 diabetes also decreased with healthy life style. Unhealthy life style leads to increased prevalence of the diseases in children and adolescents. The warning comes as public health professionals struggle against the growing urbanization war in Asia. Changing new lifestyles and habits is the best policy to minimize the incidence of obesity (7). Overuse of sugary fast foods, snacks and beverages is equally bad for health (7). Thailand has the highest rate of adult obesity in Asia due to sedentary lifestyle and high consumption of sugar and nutrient rich foods (8). According to a study in Finland, type 2 diabetes mellitus is directly associated with lifestyle changes, especially in high-risk subjects (10).

This cross-sectional descriptive study assessed the BMI in medical students of Sargodha Medical College and their association with fast food consumption. We found and discussed interesting effects for BMI and fast food consumption in our small-scale study. The medical profession is a challenge and stress, which can affect your daily routine, including eating disorders. In our study, 14% of students were overweight (BMI > 25). Over 85% of them were men and 15% women were overweight. The main causes of obese study subjects were intake of junk food, cola consumption, and physical inactivity.

The higher consumption of fast food results in higher energy intake from the sources containing highly processed food. We found that a high proportion of these obese and overweight students (50%) were with a low level of physical activity and they not engaged in any form of physical activity except walking only for 30 minutes. Significantly lower levels of this physical activity can be attributed to the medical student's lifestyle, which requires him / her to sit for long hours. In our study, we found that high BMI was significantly associated with evening and night consumption of fast food. The students consume fast food four times a week. The night time eating pattern is rarely studied in medical students, and our study has observed an association between self-reported night time eating and body weight, but it remains to be determined in larger study groups whether this indicated eating behavior and the consumption of junk food during night time really were prone to gain weight.

CONCLUSION

The diet and lifestyle of medical students is not healthy; Consumption of fast-food and cola is associated with overweight and physical inactivity. This group needs diet and exercise advice as a prevention strategy.

LIMITATION

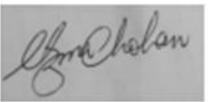
The limitation of our study was the small sample size. Results could be more generalized if students from other colleges were involved. No factors other than dietary were explored as a cause of overweight and physical activity.

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AUTHORSHIP AND CONTRIBUTION DECLARATION

S.No	Name of Author & Affiliation	Mobile Number & E. Mail	Signature of the Author	Contribution
1	Dr. Abdul Rauf Department of Community Medicine, Sargodha Medical College, University of Sargodha, Sargodha, Pakistan.			Conceived the idea, supervised the study and finalized the manuscript.
2	Dr. Rida Dawood Children Hospital and Institute of Child Health, Faisalabad, Pakistan.	+92 335 6220061 drridashoaib@gmail.com		Statistical analysis, compiled the results and helped in manuscript writing.
3	Dr. Uzma Chohan Regional Blood Center, Bahawalpur, Pakistan.	+92-304-7120713 druzmachohan@gmail.com		Data analysis and helped in interpretation of the data.
4	Dr. Junaid Akhtar Department of Allied Health Sciences, Sargodha Medical College, University of Sargodha, Sargodha, Pakistan.	+92-300-4277424 Junaid.akhtar@uos.edu.pk		Acquired the data, drafted and finalized the manuscript.

*This undertaking must be submitted along with submission of the manuscript in PJMLS.