

Original Research Article

Body Mass Index and Eating Habits among the University Students

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ABSTRACT

Introduction: Student life is a dynamic phase of a person's life; wherein person's development and growth occur, in this phase most of the habits developed by the students determine their present and future health status. Practices such as skipping breakfast, negligence in taking meals at proper time, sleep deprivation, usage of junk food as the alternative, etc. are seen commonly in university students. All these habits may increase the body weight or decrease it. The main objective was the study to assess body mass index of the university students and assess the eating habits of the students.

Method: A descriptive approach was adopted in this study. The study sample consisted of 200 subjects. A standard weighing machine and a standard stature meter were used in order to measure the weight and height of the subjects respectively. This information was later used to calculate their BMI. A self reporting checklist was used to collect information regarding their eating habits.

Result: According to frequency and percentage of the body mass index of the students included in this study, the result shows that 15% of the subjects were underweight, 55% had normal BMI, 20.5% were overweight and 9.5% were obese. Amongst the subjects, all of them consume mixed diet.

Discussion: The present study shows that the frequency of overweight students is more than underweight students. Also, Irregularity of meal intake is observed in the majority of students, while the majority also prefers eating from outside home or hostel.

Key words: BMI, junk food, eating habits.

INTRODUCTION

Major nutritional issues in today's world are overweight and underweight. Lifestyle choices and eating habits make a big difference on a person's ability to manage their weight. A sharp decline in physical activity patterns include empty stomachs due to skipped breakfast, eating snacks consisting of junk food at odd hours of the day, sleep deprivation, use of junk food as alternate food and stress, all of which result in one or more of health deteriorating conditions. ^[1] Major causes of obesity can be related to eating habits and lifestyles of individuals. Similarly,

considerable weight loss also results from unruly lifestyles and irregular eating habits.

^[2] Unhealthy diet is associated with overweight and obesity which are both associated with increased total mortality and increased risk of disease or death from cardiovascular diseases, diabetes, and several types of cancer. ^[3] Chronic non communicable diseases (NCDs) are the largest cause of death in the world, contributing to 36 million deaths annually, and accounting for 47% of the global burden of disease. ^[4]

In the wake of modern facilities and technologies, the young generation is

usually knowledgeable about health issues and health benefitting habits. Applying this knowledge to our daily routine, however, is a matter of choice. Having adequate knowledge on the various nutritional issues up to some extent affects most of an individual's eating habits. Eating habits, on the other hand, affects our body weight in significant ways. Healthy eating habits play a role in the mental health of a person as well as the physical health. Healthy eating habits affect the immune system, bone health, and athletic performance, among other functions leading to optimum physical wellness. It also helps in abilities such as cognition, problem solving, memory, alertness, sleep and information processing. It is also essential for proper brain development & maintenance of normal cognitive functions. [2]

Staying healthy doesn't happen by accident. It is the product of healthy habits practiced every day. This could mean opting for an apple instead of chips with lunch, limiting the TV time, taking the stairs instead of the elevator, or setting health goals each month. Healthy living is a choice and one that is easier to make than it is thought. [5] A descriptive study was conducted in South Africa shows 49.7% were obese, among them 58.2% were females; 31.4% were males. [6] The percentage of University students in the United States who were overweight and obesity have been reported to almost 40%. [6]

It is seen that factors such as hectic curriculum, workload, the stress of finishing work on time, home sickness, peer group pressure and food outline/habits contribute to these irregular eating habits of students. The frequency of breakfast consumption significantly decreases among young generation especially for university students. These less health conscious behavior for example; breakfast skipping served as a predictor of adult obesity. The purpose of this study was to quantify the prevalence of overweight and obesity

among a sample of university students to describe their main eating habits.

Problem Statement:

A Study on Body Mass Index and Eating Habits among the University Students in a selected setting.

Objectives

- 1) To assess the BMI of the university students.
- 2) To assess the eating habits of the students.
- 3) To find out an association between eating habits and selected baseline data of the students.

MATERIALS AND METHODS

The descriptive quantitative approach was adopted in this study. By Simple random sampling technique 200 students selected from Father Muller College of nursing. The weight of the subjects was assessed using a weighing machine and the height of the subjects was measured using stature meter and calculated BMI. The eating habits of the subjects were assessed using a self-reported questionnaire. The data obtained were analyzed in terms of the objectives by using descriptive and inferential statistics.

Inclusion criteria

- 1) An undergraduate student within the age group of 19-29.
- 2) Students available at the time of data collection.

Exclusion criteria

- 1) Students diagnosed with
 - (a) Any Hormonal Disorders;
 - (b) Any serious communicable diseases within the last 15 days
 - (c) Currently on treatment for any infections.
- 2) Pregnant Students.

RESULTS

Description of baseline characteristics:

The 50% of subjects are in the age group of 18 to 20 years. The 55% of the

subjects had normal BMI, 20% of the subjects were overweight, 15% are underweight and 10% are obese. Detail description is given in table 1.

Description of Eating habits of the subjects:

Findings exposed that 68% of the students are consuming three meals and 2 snacks regularly in the past one month. The majority 66% of the students ate outside on a monthly basis, and 2% ate on a daily basis, 27.5% ate on a weekly basis, and 4% of the students go less than once a month or never ate outside. Findings of the study discovered that 52% of the students ate all the meals outside home/hostel. The majority of the students consume starch, fruits, vegetables, dairy products, meat, fish, poultry, fat items and sweets only once or twice a day. The number of students consuming vitamins and minerals is a very minimal. Only 1.5% consumes vitamins and minerals as a supplement, 3% takes other dietary supplements, and only 1% consumes meal replacement products. The exercises is performed at home is 12.5% and the rest do

not perform exercises at home. There is a negligible percentage of students who are using any of the available medicines or diets or surgeries to lose weight.

The detail information is shown in table 2 and 3

Association between the level of menopausal symptoms and selected variables

The present study divulged that there is an association with BMI with Regularity of meals since the ‘p’ value is 0.050 and no association in BMI with Snacking pattern since the ‘p’ value is greater than 0.05 level of significance. Detail information is displayed in table 4.

Table 1: Distribution of subjects based on baseline characteristics in frequency and percentage. n=200

Variable	Frequency(f)	Percentage (%)
Age in Years		
18-20	100	50
21-23	76	38
23-25	24	12
BMI (according to WHO)		
Underweight (<18.5)	30	15
Normal (18.5-24.9)	110	55
Overweight (25.0 – 29.9)	41	20.5
Obese (≥30.0)	19	9.5

Table 2: Description of eating habits of the subjects

No. of Meals	Frequency(f)	Percentage (%)
Average frequency of food intake per day in the last one month.		
Three meals and 2 snacks	136	68
Three meals and more than 2 snacks	64	32
eating outside home/hostel in the last one month		
Daily	5	2.5
At least once a week	55	27.5
At least once a month	132	66
Less than once a month or Never	8	4
Type of meal consumed from outside home/hostel		
Breakfast	19	9.5
Lunch	26	13
Dinner	52	26
All three	103	51.5
Students performing exercises at home/hostel		
Performs Exercise	25	12.5
Does not perform exercise	175	87.5
Student taking medicines, diets, and surgeries to lose weight		
Taking Medicines	0	0
On a Diet	1	0.5
Surgery	0	0

Table 3: Average Frequency of intake of selected food items in a day n=200

	Never		Once-Twice		3-5times		6-8times		more than 10	
	F	%	F	%	F	%	F	%	F	%
Starch	3	1.5	162	81	29	14.5	6	3	0	0
Fruits	14	7	153	76.5	24	12	7	3.5	1	0.5
Vegetables	2	1	117	58.5	67	33.5	14	7	0	0
Dairy Products	21	10.5	154	77	17	8.5	7	3.5	1	0.5
Meat, fish, Poultry	8	4	164	82	22	11	6	3	0	0
Fat(Butter, cream cheese)	30	15	152	76	15	7.5	3	1.5	0	0
Sweets(Candy, cake, etc)	9	4.5	147	73.5	35	17.5	9	4.5	0	0

Table 4: Association of demographic variables with eating habits

	Normal	Obese	Over weight	Underweight	χ^2	P
BMI with Regularity of meals						
Three Meals and two snacks	82	13	25	16		
More than three meals and >2snacks	28	6	16	14	24.997	.050
BMI with Snacking pattern						
Unhealthy snacking	8	1	7	5		
Healthy snacking	102	18	34	25	4.873	.181

a. 3 cells (37.5%) have expected count less than 5. The minimum expected count is 2.00.

DISCUSSION

The study shows that 55% of the subjects as having normal BMI. 20% of the subjects were overweight, 15% were underweight and 10% were obese. Students consuming three meals and 2 snacks regularly in the past one month were 68%. Students regularly consuming more than three meals and more than 2 snacks are 32% of the subjects. A 66% of the students ate outside on a monthly basis, and 2% ate on daily basis, 27.5% ate on a weekly basis and 4% of the students ate outside less than once a month or never ate outside.

Above findings are supported by an explorative study done among a large, diverse sample of adolescents to assess the association between weight perception and BMI Results showed that 1.5% students were classified as underweight or at risk for underweight, 51 of students were of normal weight and 47.4% were overweight or at risk for overweight. Even when using BMI calculated from self-reported height and weight, >20% of students who were overweight or at risk for overweight perceived themselves as underweight. [8]

CONCLUSION

Findings of the study illustrated that BMI of a student is directly or indirectly based on the students eating habits and food practices. Methods such as skipping breakfast, negligence of taking meals at a

proper time, sleep deprivation, usage of junk food as an alternative, etc are common amongst university students. Findings also depicted that there is no association of the demographic variables with eating habits

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