Original Article

Community Medicine

Eating Habits and Body Mass Index of Medical Students of Shaheed Mohtarma Benazir Bhutto Medical University, Larkana

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ABSTRACT

Objective: The study aimed to determine the eating habits and body mass index among the medical students of 4th year MBBS at Shaheed Mohtarma Benazir Bhutto Medical University, Larkana.

Study Design: Cross sectional study

Place and Duration of Study: A cross sectional survey of 4th year MBBS medical students was conducted at Shaheed Mohtarma Benazir Bhutto Medical University (SMBBMU) Larkana, Sind, Pakistan from 22 March to 24 May, 2011.

Materials and Methods: Study was conducted on medical students of 4th Year MBBS of Shaheed Mohtarma Benazir Bhutto Medical University, Larkana from 22 March to 24 May, 2011. Taking ethical consideration, data was collected by self – administered questionnaire beside socio-demographic characteristics, family history of obesity, physical activity, dietary habits, smoking, Weight, and Height were recorded and BMI (Body Mass Index) was calculated for each medical student , BMI (Weight in Kg/Height in meter ^{2})

Overweight (BMI = 25-29.9 kg/m^2) , Obesity (BMI = $\geq$30 kg/m^2) categories were used by WHO classification. Statistical analysis was carried out by using SPSS version.16.0

Results: In study, total 73 medical students were included, among the female students 10.96% were overweight and 02.74% obese, whereas among male students 12.33% and 08.22% were overweight and obese. The present study revealed that 10.96% of the study sample from Shaheed Mohtarma Benazir Bhutto Medical University Larkana were obese (whose Body Mass Index = BMI was more than or equal to($\geq$ 30 kg/m^2) and 23.29% of the medical students were overweight (Body Mass Index = BMI was (25 -29.9 kg/m^2) while only 65.75% of the university students had normal body weight (BMI= 18.5 24.9 kg/m^2).

Conclusion: Male students were more prone to overweight and obesity, multifaceted efforts are required for eating habits of students and propose interventions to improve such habits.

Key Words: Eating habits, Body Mass Index, Male and female students, Larkana.

INTRODUCTION

Obesity is a public health problem worldwide with significant adverse health outcomes than any other disease. Obesity is a chronic multi-faceted disorder associated with an increased frequency of a number of diseases like Diabetes, hypertension, arthritis, gout and gallbladder diseases. [1] Obesity and overweight are currently an "escalating epidemic" affecting both underdeveloped and developed countries including Asia.[2,3]. Obesity is defined as the presence of excess adipose tissue. [4] More than 10% of the world's adult population were obese in 2008.[5] More than one billion adults are overweight and 300 million of them are clinically obese reported by World Health Organization.[6] Unhealthy lifestyles as the "lifestyle syndrome" or the New World syndrome. This is referred as the most important etiology for high rates of obesity and its consequent morbidity and mortality in developing countries.[7] Rapid increases in obesity rates have also been documented in the developing world.[8] Weight bias is in all domains of life employment [9,10], educational setting [11,12,13] to private life. [14] stress and medical study load factors that negatively influence the diet of university student.[15]

University students tend to make their own food choices [16] based on cost of food and availability of fast food.[17]

MATERIALS AND METHODS

On the day of the survey, instruction about filling in the questionnaire was given to the students under the supervision of MPH postgraduate students and was filled in front of at least one of the research assistants .The questionnaire included questions on anthropometric measurements, eating habits , physical activity, family history of obesity, family income and smoking habits.

A cross sectional study was carried out at Shaheed Mohtarma Benazir Bhutto Medical University Larkana, Sind, Pakistan from 22 March to 24 May, and 2011.Medical students of 4th Year MBBS, who were attending the university regularly and were included in the study. Weight, Height were recorded and BMI (Body Mass Index) was calculated for each medical student, BMI (Weight in Kg/Height in meter ^{2})

Overweight (BMI = 25-29.9 kg/m^2) , Obesity (BMI = ≥30 kg/m^2) and Normal (18.5 24.9) categories were used by WHO classification. Questionnaires were assessed as being answered correctly or incorrectly. Statistical analysis was carried out by using SPSS version.16

RESULTS

In study, total 73 medical students were included, 38 (52.05%) were female students and 35 (47.95%) were male medical students. Among the female students 10.96% were overweight and 02.74% obese, whereas among male students 12.33% and 08.22% were overweight and obese respectively. Total 87.67% sample were single. Most of the sample 73.97% had moderate to high family income per month. 02.74% female students and 08.22% male students reported the family history of obesity. Regular physical activity reported in females 02.74% while in males 05.48%. Snacking between meals, tea and soft drinks pattern were 16.43% in females and 35.62% in males. Fast food and sweet consumption was 24.65% and 34.25% in females and males respectively. Smoking habit pattern 01.37% was reported only in male students, 17.81% (smoking sometimes) in males.

Table No.1: Age group with frequency and percentage

Age in Years	Frequency	Percentage %
< 21	18	24.66
>21- < 24	35	47.95
>24-26	20	27.39
Total	**73**	**100**

Table No.2: Showing number of students with percentage and Body Mass Index (BMI) in Categories.

Body Mass Index (BMI)	No. of Students	Percentage %
Normal < 25	48	65.75
Overweight 25 -< 30	17	23.29
Obesity ≥ 30	08	10.96
Total	**73**	**100**

Table No.3: Showing number of female and male students with percentage and Body Mass Index (BMI) in BMI Categories

BMI	Female No. %	Male No. %	Total No. %
Normal (18.5 – 24.9)	28 (38.35)	20 (27.40)	48 (65.75)
Overweight (25 – 29.9)	08 (10.96)	09 (12.33)	17 (23.29)
Obesity (≥30)	02 (02.74)	06 (08.22)	08 (10.96)

Table No. 4: Characteristics and Food consumption pattern of medical students

Variables	Females No,%	Males No. %	Total No. %
Marital status			
Single	32 (43.83)	32 (43.83)	64 (87.67)
Married	05 (06.85)	04 (05.48)	09 (12.33)
Family income (PKR)			
Low (< 10,000)	10 (13.70)	09 (12.33)	19 (26.03)
Moderate (10,000 – 20,000)	16 (21.92)	15 (20.55)	31 (42.47)
High > 20,000	11 (15.06)	12 (16.43)	23 (31.50)
Family History of Obesity			
Yes	02 (02.74)	06 (08.22)	08 (10.96)
No	35 (47.94)	30 (41.09)	65 (89.04)
Exercise / (Physical Activity) > 30 min:			
Yes	02 (02.74)	04 (05.48)	06 (8.22)
No	18 (24.65)	14 (19.18)	32 (43.83)
Sometimes	15 (20.55)	20 (27.40)	35 (47.95)
Snacking (Bakery items)**Tea, soft drinks**			
Yes	12 (16.43)	26 (35.62)	38 (52.05)
No	01 (01.37)	06 (08.22)	07 (09.59)
Sometimes	10 (13.71)	18 (24.65)	28 (38.36)
Fast Food consump-tion and sweets			
Yes	18 (24.65)	26 (34.25)	42 (58.90)
No	06 (08.22)	01 (01.37)	07 (09.59)
Sometimes	05 (06.86)	18 (24.65)	23 (31.51)
Smoking			
Yes	00 (00.00)	01 (01.37)	01 (01.37)
No	32 (43.83)	27 (36.99)	59 (80.82)
Sometimes	00 (00.00)	13 (17.81)	13 (17.81)

DISCUSSION

In recent years, improved living standards and huge advances in technology, the overall energy intake has increased due to over nutrition. On the other hand, living standards are becoming more and more sedentary and energy expenditure is reduced. Obesity has increased at an accelerated rate in societies and in several industrialized countries that have been undergoing rapid socioeconomic transitions.

In the study sample 87.67% of the whole sample were single.73.97% sample had moderate to high family income per month. In the study, male gender medical students were found with overweight 12.33% and obesity 8.22% as compared to female 10.96%, 2.74% respectively. Similar type of study was conducted among medical students and reported 24% overweight or obese.[18] Findings of our study is consistent with that study. Another study was conducted in Karachi, prevalence of overweight among boys was 47.7% and in girls it was 15.9%. Contrarily studies conducted in

private medical universities of sind and reported higher number of overweight 52.6% and obese 41.7% among female students (high socio- economic status) , our findings are not consistent with private medical universities of country.[19] The medical students who were found to be at higher risk of being overweight and obese were male students, who had snacks (Bakery items), tea and soft drink [20] (Amount of sugar and milk being consumed in it). These edibles in small amounts provide high calories and possibly can contribute towards overweight, obesity, [19] and have a positive family history of obesity. There is a role of genes in the development of overweight and obesity.[21] Very small percentage of males was involved in regular physical activity (exercise). Daily consumption of fast food was 34.25% in males while 24.65% was in females. Food consumption pattern was seen in East Mediterranean Region over the past 30 years, a rapid rise in food energy availability and consumption,beyond requirement.[22] Smoking pattern was seen only in 1.37% and 17.81% reported smoking sometimes with friends in male students.

During adolescence, excessive weight predicts a number of adverse health outcomes later in life, to increase the likelihood of morbidity and mortality.

Finally prevention of overweight and obesity concerned health problems among university students should be planned in early childhood.

CONCLUSION

Improving medical university student's awareness about eating habits, overweight and obesity health problems is an essential step towards decreasing the prevalence of overweight and obesity among medical university students and community.

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