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Obesity among medical lecturers and their staff in Taibah University

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Abstract

Background : *Obesity is assuming an epidemic dimension globally. It is important to appreciate factors associated with the disease so that a holistic approach can be taken in tackling the rising burden. The objective of this study was to determine the prevalence of overweight and obesity and the factors associated with obesity .*
Objectives :*to determine the prevalence of obesity among medical lecturers and to examine the relationship between the sociodemographic variables (food bad habits .. physical activity .. psychological effects) and obesity.*
Methodology : *This was a descriptive cross-sectional study carried out in Taibah university in Madinah .Subjects were consecutively recruited using simple random sampling and the size of the sample was 35 medical lecturers .*
Results :
The study found that The percentage of Overweight and Obesity were more than 75% . However, in multivariate analysis, factors independently associated with obesity were obesity among mother (P = 0.014) , number of meals per day (P = 0.006) and physical activity (P = 0.031) .
Conclusion :*The number of obese medical lecturers is significantly high . Therefore, obesity is becoming a public health problem . Our government should pay attention to the increasing prevalence of obesity in Saudi Arabia by establishing centers to control obesity . Lowering the total calorie intake is an important first step to promote weight loss. Also Exercise offers many health benefits , it helps people burn more calories .*

INTRODUCTION

Obesity is a medical condition in which excess body fat has accumulated to the extent that it may have an adverse affect on health, leading to reduced life expectancy . Over the last two decades the influence of the western world has led to an increased consumption of fast foods and sugar-dense beverages (e.g., sodas). Simultaneously, technological advances – cars, elevators, escalators, remotes - have lead to a decrease in our level of activity. Our traditional dependence on locally grown natural produce such as dates, vegetables and wheat has also shifted.

Not only has the quality of our food contributed to this problem, but it is also influenced by the quantity we eat. Today's meals are substantially larger than just a decade ago. Based on the National Nutrition Survey of 2007, the prevalence of obesity in the KSA was 23.6% in women and 14% in men. The prevalence of overweight in the community was determined to be 30.7% for men as compared to 28.4% for the women. Similarly, the Coronary Artery Disease in Saudis Study (CADISS) of 2005 estimated an overall obesity prevalence of 35.5% in the Kingdom: in other words one in every three people in the country is obese.

LITERATURE REVIEW

Adult overweight and obesity are increasingly significant problems,and ones that are likely to endure and to have long term adverse influences on the health of individualsadult and populations unless action is taken to reverse the trend.

A number of factors have been suggested as contributing to the development of adult obesity. These include genetic factors, decreasing levels of physical activity, increased time spent in sedentary behaviour and changes in diet. In addition, lifestyle factors, including family influences, changes in society and media advertising, have been associated with the increasing incidence of obesity and overweight in Adult. To address the problem, health care professionals should incorporate appropriate screening in their practice. Comprehensive assessment of adult who are, or who are at risk of becoming, obese is also necessary.

A range of interventions have been suggested, and although there is no consensus on the best way to prevent and manage adult obesity, a combination of increasing energy expenditure through exercise, dietary modification, and reduction of sedentary behaviour, appears to be the most effective approach. A key element of addressing adult overweight and obesity is involvement of the whole family and other environments in which adult spend significant amounts of time, such as offices . The aim of interventions should be to create healthy environments in which a healthy diet and exercise become normal daily living. Given the multifaceted nature of managing overweight and obesity in adult, health care professionals involved in this area need to be prepared to address potentially difficult issues concerning lifestyle and choices as well as specifics of exercise and nutrition. These are areas in which some health care professionals lack confidence or role clarity. A part of reversing the trends that have led to the international pandemic of adult obesity will therefore be to support and assist health care professionals in gaining skills and confidence in this area.

METHODOLOGY

This was a descriptive cross-sectional study carried out in Taibah university in Madinah to determine the prevalence of obesity among medical lecturer . also , to examine the relationship between the sociodemographic variables (food bad habits .. physical activity .. psychological effects) and obesity Subjects were consecutively recruited using simple random sampling and the size of the sample was approximately 35 medical lecturers .

information was obtained on relevant sociodemographic characteristics like sex, family history of obesity, diatry habits and physical activity The data collection was performed by questionnaire that have information about sociodemographic , dietry habits ,physical activity , psychological data and Anthropometric data .

Definition of terms :

BMI (kg/m^2) was categorized using the World Health Organization (WHO) definitions: BMI of 18.5-24.9 kg/m^2 was used as the reference (normal BMI), 25-29.9 kg/m^2 was used to define overweight while ≥30 kg/m^2 was used for definition of obesity. Obesity was further sub classified into class 1 (30-34.9 kg/m^2), class 2 (35-39.9 kg/m^2) and class 3 (≥40 kg/m^2) .

Anthropometric measurements

Weight was taken to the nearest 0.1 kilogramme using a weighing scale while for measurement of height, a stadiometer was used. Body mass index (BMI) was then calculated from weight (in kilogrammes) divided by a square of the height (in metres).

Statistical analysis

Data was analyzed using the Statistical Package for the Social Sciences version 17.0 (SPSS Inc.). Means and standard deviations were obtained for relevant variables while frequency tables were also generated. For comparison of categorical variables, the Chi-square test was used . The results of regression analyses were reported Using a statistical significance that was set at $p < 0.05$.

RESULTS

Table1.The characteristics of study subjects

The characteristics	Mean ± SD
Age (years)	**47.4 ± 7.2**
Weight (Kg)	**87.5 ± 17.7**
Height (Cm)	**172.4 ± 7.1**
BMI (Kg/m²)	**30.6 ± 7.3**

The mean and SD of Age ,weight ,height and BMI are 47.4 ± 7.2 ,87.5 ± 17.7 ,172.4 ± 7.1 and 30.6 ± 7.3 , respectively .

Table2. Body Mass Index (BMI) distribution among study subjects

BMI	Frequency N	Percent %
Normal weight	**8**	**23.5**
Over weight	**8**	**23.5**
Obese	**18**	**52.9**
Total	**34**	**100%**

The study found that The proportion of Normal weight , Over weight and Obesity were 23.5% , 23.5% and 52.9 % , respectively **.**

Table3. Study subjects response to questions related to dietary habits

The questions	N	%
(1) Number of meals per day		
One meal	**4**	**11.8**
From two to three meals	**28**	**82.4**
More than three meals	**2**	**5.9**
(2) Eating of breakfast		
Yes	**26**	**76.5**
No	**8**	**23.5**
(3) Eating of snacks		
Yes	**18**	**52.9**
No	**16**	**47.1**
(4) Number of snacks per day		
One snack	**11**	**32.4**
From two to three snacks	**5**	**14.7**

More than three snacks	**2**	**5.9**
(5) Eating of fast food		
Yes	**22**	**64.7**
No	**12**	**35.3**
(6) Number of fast food weekly		
One	**10**	**29.4**
Two	**8**	**23.5**
three ore more	**4**	**11.8**

The study found that the proportion of subjects who eat breakfast , snacks and Fast food was 76.5% , 52.9% and 64.7%, respectively .

Table4. Study subjects response to questions related to exercise and watching TV

The questions	N	%
(1) Doing exercise		
Yes	**21**	**61.8**
No	**13**	**38.2**
(2) The frequency of exercise per day		
One weekly	**5**	**14.7**
Two weekly	**9**	**26.5**
Three or more weekly	**7**	**20.6**
(3) The duration of exercise		
Less than one hour	**13**	**38.2**
From two to three hours	**6**	**17.6**
More than three hours	**2**	**5.9**
(4) Number of hours in watching TV		
Less than one hour	**12**	**35.3**
From two to three hours	**8**	**23.5**
More than three hours	**14**	**41.2**
(5) Eating while watching TV		
Yes	**20**	**58.8**
No	**14**	**41.2**

The proportion of subjects who do exercise was 61.8% while those who don't do exercise was 38.2% . the proportion of subjects who practice exercise three or more times weekly was 20.6% . the proportion of subjects who eat while watching TV is 58.8% while subjects who don't eat while watching is 41.2 % .

Table5. The relationship between BMI and family history

BMI	Obesity among mother		Obesity among father		Obesity among other	
	Yes	No	Yes	No	Yes	No
Normal Overwight Obese	0 (0%) 1 (10%) 9 (90%)	8 (32%) 7 (28%) 10 (40%)	1 (10%) 1 (10%) 8 (80%)	7 (29.2%) 7 (29.2%) 10 (41.6%)	0 (0%) 2 (20%) 8 (80%)	8 (33.4%) 6 (25%) 10 (41.6%)
	P value = 0.014		P value = 0.110		P value = 0.024	

BMI= Body Mass Index

The study found that there is a significant raletionship between BMI and obesity among mother (P = 0.014) also between BMI and obesity among other members of family (P = 0.024) .

Table6. The relationship between BMI and dietary habits .

BMI	Number of meals per day			Eating of fast food		Eating of breakfast	
	one	2-3	> 3	Yes	No	Yes	No
Normal Overweight Obese	3 (75%) 0 (0%) 1 (25%)	3 (10.7%) 8 (28.6%) 17 (60.7%)	2 (100%) 0 (0%) 0 (0%)	5 (22.7%) 4 (18.1%) 13 (59.2%)	3 (25%) 4 (33.3%) 5 (41.7%)	6 (23%) 8 (30.7%) 12 (46.3%)	2 (25%) 0 (0%) 6 (75%)
	P value = 0.006			P value = 0.548		P value = 0.075	

Results of the study (Table6.) shows that There is a significant relationship between BMI and Number of meals per day (P = 0.006) .

Table7. The relationship between BMI , physical activity and watching TV .

BMI	Number of hours in watching TV			Physical activity	
	< one	2-3	> 3	Yes	No
Normal Overweight Obese	4 (33.3%) 2 (16.7%) 6 (50%)	3 (37.5%) 2 (25%) 3 (37.%%)	1 (7.1%) 4 (28.6%) 9 (64.3%)	5 (35.7%) 2 (14.3%) 7 (50%)	3 (15.8%) 6 (31.6%) 10 (52.6%)
	P value = 0.360			P value = 0.031	

Results of the study (Table7.) shows that There is a significant relationship between physical activity and BMI (P = 0.031) .

DISCUSSION

The percentage of overweight and obesity among subjects is more than 75% that indicates the high rate of overweight and obesity in medical lecturers thereby increasing the diseases caused by obesity . One of the main causes is eating habits. People eat more meals per day and do not have time to prepare a good meal healthy. For example, in office, staff may be have 2 hours for break time so they have more time to eat meals and snacks . As a result, more people become fat.

The second cause is less physical activity than ever. People have some conveniences such as elevators, motorbikes or car, and remote control so people cut activities out of their lives. For instance, instead of walking to their apartment on the second floor, doctors use elevators. As a consequence, calories continue to cumulate. This causes obesity. There are other causes of obesity like family history of obesity either among the mother, father or other members of family . These findings are consistent with findings from other previous studies .

CONCLUSION

The number of obese medical lecturers is significantly high . Therefore, obesity is becoming a serious public health problem . Our government should be wary of increasing obesity in Saudi Arabia by establishing centers to control obesity and organization of conferences to control it .

Lowering total calorie intake is an important first step to promote weight loss, but it is also important to pay attention to what people eat. people should read the nutritional facts on food and eat more plant-based foods .People should try replacing one or two meals with products less in calories, then eat snacks of vegetables and fruits .

Exercise offers many health benefits. First, it helps people burn more calories and the frequency, duration and intensity of exercise will determine how many calories people burn . If people have a busy daily schedule, they should focus on introducing ways to increase their physical activity. For example, instead of using the elevator, they should take the stairs .

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