Frequency of Obesity among Lady Doctors of Multan Medical & Dental College & Hospital

Uzma Arshad[1], Shehla Qadir[1], Muhammad Kamran Adil[1], Muhammad Ahmad Amjad[1]

1. Ibn -e-Seena Hospital Southern Bypass, Multan, Pakistan

*Correspondence: uzmaar84@gmail.com

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Significance:

The most prevalent type of malnutrition is the obesity that occurs both in developed and developing countries. It has replaced the most traditional public health concerns including under nutrition. The study tiled frequency of obesity among lady doctors of Multan medical and dental college and hospital Multan is going to explore the alarming rate of obesity among Lady doctors of our society. These women should be able to find a better solution for their increased weight gain otherwise how they can be able to manage the other females of our society.

Abstract

Background: This is a report from Multan Medical and Dental College about obesity among lady doctors and factors associated with it.
Methodology: A cross sectional descriptive study was carried out in Multan medical & dental college and hospital from 1st January 2020 to 30th March 2020 after taking approval from institutional review board. Closed ended questionnaire was used to collect data from 159 lady doctors of age from 22 to 60 years including both married and unmarried females using simple random sampling technique.
Results: Obesity was seen more in married lady doctors i.e. 64 (83.1%) as compared to 13 (16.88%) unmarried lady doctors and highest frequency of obesity was seen in 50 to 60 years age group i.e. 22 (88%) obese as compared to 3 (12%) non obese. The results were statistically significant. P=0.000.
Conclusions: There is alarming rate of obesity among married lady doctors and also in upper age group i.e., 50 to 60 years.

Introduction

Obesity is the abnormal growth of adipose tissue due to increase in fat cell size (hypertrophic obesity) or an excess of fat cell number (hyper plastic obesity). (1) Worldwide the burden of obesity and overweight has risen to double since 1980. This pandemic is more among women as compared to men (2). Overweight and obesity among females are arising to alarming rate especially in low and middle income countries. (3) Pakistan ranked 9th among most obese nations of the world. (4) According to WHO, in Pakistan 26% of female are obese. This alarming rate is more among urban population. A study conducted in northern areas of Pakistan suggested that prevalence of obesity in females was 14.1%. (5) According to WHO, person is said to be obese if his BMI is ≥ 30. Obesity is multifactorial in causation. It takes into account genetic, environmental and psychological factors. (6) However, the increase prevalence of obesity is mainly due to high intake of caloric rich diet and reduced physical activity. (7) Obesity is clearly linked to increase in mortality and morbidity. It leads to emergence of hypertension, diabetes mellitus, CHD, and many others. (8) In context of obesity we cannot ignore the psychological issues related to obesity. (9) The objective of the study is to determine the rising prevalence of obesity among females doctors and assessing the factors that contribute to such prevalence.

Methodology

A cross sectional descriptive study was carried out in Multan medical & dental college and hospital from 1st January 2020 to 30th March 2020 after taking approval from institutional review board. A close ended questionnaire was used to collect data from 159 lady doctors of age from 22 to 60 years including both married and unmarried females using simple random sampling technique. List of lady doctors was taken from administration block. Lady Doctors suffering from chronic disease like Cushing syndrome, hypothyroidism and poly cystic ovaries were excluded from the study. Pregnant lady doctors were also excluded from study after taking the informed written consent sample size was taken by lottery method (simple random sampling). The height and weight of selected lady doctors were taken to calculate BMI. Data was analyzed by using SPSS version 20. Mean and standard deviation were calculated for age and BMI. Frequency and percentage were calculated for marital status and obesity. Stratification with respect to age and marital status was done. Post stratification chi square test was applied by taking $p \leq 0.05$ as significant.

Results

Total study population was 159 with mean age 34.59 and SD ± 10.017. Mean BMI was 24.82 with SD. ±4.49. Maximum no of doctors was in age group < 30 years (42.1%). Most doctors were married (64.8%). Based on BMI, obesity was present in 48.4 %. And it was more among married doctors (83.1%). The obesity was highest in upper age group i.e., 50 to 60 years (88%). On applying chi square test, the results are statistically significant i.e. p= 0.000.

Table 1: Frequency Distribution of obesity

Obesity	Frequency	Percent
Yes	77	48.4
No	82	51.6
Total	159	100

Table 2: **Frequency distribution of obesity among married and unmarried lady doctors**

obesity	Marital status		Total	P-value
	Married	Unmarried		
Yes	64	13	77	0.000
No	39	43	82	
Total	103	56	159	

Table 3: Frequency distribution of obesity among different age groups

Obesity	Age				Total	P-value
	<30 yrs	30-39 yrs	40-49 yrs	50-60 yrs		
Yes	17	27	11	22	**77**	**0.000**
No	50	21	8	3	**82**	
Total	67	48	19	25	**159**	

Discussion

Obesity is perhaps the fastest expanding illness all over the world and it has affected around 1.7 billion population globally. The main factors for this epidemic are mainly the extreme intake of energy dense food and unhealthy life style.[10] From a clinical point of view, excessive obesity may lead to multiple physical limitation and prone to many disabilities and diseases. Obesity occurs when content of fat cells is more than 30% in case of females. The primary objective of this study is to determine the prevalence of obesity among lady doctors. We found 48.4% of lady doctors as obese that was more as compared to that seen in general population that is 23.3%.[11] Another study conducted in general population in Punjab showed that prevalence of obesity was 29.6%.[12]A study conducted in Saudi Arabia showed the prevalence of obesity as 30.6% in female medical students. [13]It has also be seen that in Pakistan one out of every four individuals is obese.[14] In our study the obesity is more among the married females which can be compared with a study conducted in Kenya,[7]that also showed high prevalence of obesity in married females. In our study obesity was least commonly seen in age group less than 30 years. This age group included most of the unmarried females. After this age group the rate of obesity gradually increased which showed the relationship of obesity with marital status and age. The reason for this can be that female doctors are unable to pursue their outdoor physical exercise due to restrictions from our society and with double burden of responsibilities i.e. at home and at hospital. In addition, there are multiple facilitators that can predispose to obesity for example wide spread availability of low cost caloric dense food and greater genetic susceptibility to obesity.[15] Evidence shows that food marketing also plays a massive role in consumption of fast food and soft drinks which lead to overweight and obesity. [16] A study conducted in Pakistan also showed that age is the main factor that forecasts the obesity in Pakistani females especially during the reproductive years.[17] According to it older females were more prone to obesity as compared to younger females. We can assume that sedentary life style could be the main factor in causing obesity.[18] Other studies also showed association of physical activity and obesity.[19] So the phenomena of development of obesity is quite blurred. It may be the combined result of relationship between individual biology and environment. This study showed increasing trends of obesity among doctors who require health promotion and preventive strategies to suppress this problem. There is a need to develop cost effective intervention by involving doctors and hospital administration in order to prevent this problem. There are few limitations that require to be addressed while elucidating the result. Base line figure regarding weight status of doctors is usually not taken at the time of initiation of job, otherwise it could have helped us to conclude that they gained weight before or after getting their job.

Conclusion

Although a large proportion of female doctors have a normal weight but alarming rate of obesity among doctors in older age groups requires urgent strategies to solve this problem. We should focus on approaches that provide solution in which health care providers deliver evidence based and cost-effective interventions.

Recommendations

- Dietary guidelines should be available for all.
- Existing knowledge about obesity should be used to modify our practice to solve this problem.

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