University of Babylon
College of medicine

BMI Of Doctors Of Babylon Governorate

Submitted to

Department of Family and Community Medicine

Prepared by 4th stage students

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I-Abstract

Obesity is a chronic complex disease defined by excessive fat deposits that can impair health. Obesity can lead to increased risk of type 2 diabetes and heart disease, it can affect bone health and reproduction, it increases the risk of certain cancers. Obesity influences the quality of living, such as sleeping or moving. We conducted a cross-sectional study among 199 doctors from beginning of the march to the beginning of the April, working in various hospitals,primary health care centers and college of medicine and density in Babylon. The question- naire sheet consisted of 19 questions collected demographic data regarding age,gender,hight , weight and the presence of long- standing illnesses. Multiple-choice questions were used if they felt they had a disease they studied about, and the duration of the feeling, the percentages of participants who were of normal weight, overweight and obese were (24.1%,49.7%,26.1%) respectively,The research may conclude that obesity is prevalent among doctors, potentially even more so than in the general population. It may identify various risk factors contributing to obesity among doctors, such as long work hours, stress, irregular eating habits, and limited opportunities for physical activity.

II-introduction

Obesity is a chronic complex disease defined by excessive fat deposits that can impair health. Obesity can lead to increased risk of type 2 diabetes and heart disease, it can affect bone health and reproduction, it increases the risk of certain cancers. Obesity influences the quality of living, such as sleeping or moving. In 2022, 2.5 billion adults aged 18 years and older were overweight, including over 890 million adults who were living with obesity. This corresponds to 43% of adults aged 18 years and over (43% of men and 44% of women) who were overweight; an increase from 1990, when 25% of adults aged 18 years and over were overweight. Prevalence of overweight varied by region, from 31% in the WHO South-East Asia Region and the African Region to 67% in the Region of the Americas **(1)** .

Obesity is frequently measured as a weight per height, considering gender, ethnicity and age: commonly, obesity is expressed by body mass index (BMI) for scientific purposes. The BMI is a well-defined and reliable marker to study obesity and its related diseases **(2, 3)** . The obesity guidelines and classification systems defined healthy weight, overweight, and obesity as BMI 18.5 - 24.9 kg/m2, 25.0 - 29.9 kg/m2, and more than 30 kg/m2 respectively, in adult individuals; and for adolescents and children, the American Centers for Disease Control and Prevention body mass index-for-age percentile growth charts for and boys defined overweight as a body mass index 290th percentile of standard weight, while the obesity is described as a body mass index >95th percentile of standard weight **(4)** .

Causes

Diet and lifestyle factors :

- eating large amounts of processed or fast food – this is food that's high in fat and sugar.

-drinking too much alcohol – alcohol contains a lot of calories .

-eating out a lot – food cooked in a restaurant may be higher in fat and sugar.

-eating larger portions than you need .

-drinking too many sugary drinks – including soft drinks and fruit juice .

comfort eating – some people may comfort eat due to many other factors affecting their life such as low self-esteem or low mood

Physical activity :

Lack of physical activity is another important factor related to obesity. Many people have jobs that involve sitting at a desk for most of the day. They also rely on their cars, rather than walking or cycling

Genetics :

There are some genes associated with obesity and overweight. In some people, genes can affect how their bodies change food into energy and store fat. Genes can also affect people's lifestyle choices .

Cmplications :

-Osteoarthritis: It promotes inflammation, which includes swelling, pain and a feeling of heat within the body .

-Heart disease and strokes: Obesity makes you more likely to have high blood pressure and unhealthy cholesterol levels .

-Certain cancers: the uterus, cervix, endometrium, ovary, breast, colon, rectum, esophagus, liver, gallbladder, pancreas, kidney and prostate .

-Sleep apnea: a potentially serious disorder in which breathing repeatedly stops and starts during sleep .

-Digestive probleme: developing heartburn, gallbladder disease and liver problem .

-Fatty liver disease : a condition that happens due to excessive fat deposit in the liver. In some cases, this can lead to serious liver damage, known as liver cirrhosis

Among the groups that have high risks of obesity and overweight in the general population are healthcare workers **(5)** .Generally, due to the work done at the medical workplace, health care workers including doctors have a sedentary lifestyle which predisposes them to obesity **(6,7) .**Compelling demands at job such as night shifts, work stress

among doctors and nurses and workload are some of the risk factors of overweight and obesity among healthcare workers **(8)** .

to preserve the quality of their performance, physicians have a responsibility to maintain their health and wellness.... When health or wellness is compromised, so may the safety and effectiveness of the medical care provided.... Physicians whose health or wellness is and that compromised should take measures to mitigate the problem there is an obligation on the part of the medical profession to establish "physician health programs that provide a supportive environment to maintain and restore health and wellness **(9)** .

The management of obesity is a multidisciplinary task. Clinicians play an important role by providing evidence-based ad vice to their patients regarding health risks associated with excess weight and recommending measures to reduce them. In a systematic review and meta-analysis, primary care providers' advice appeared to have a significant positive impact on patients' at tempts to change behaviours related to their weight **(10)** . Studies have shown that patients may be less trusting towards overweight physicians when compared to normal weight physicians and this would negatively affect patients' inclination to follow medical advice **(11)** .

III-Methods and Materials

Ethical consideration:

The ethical approval was obtained from the Department of Family and Community Medicine, College of medicine in Babil before beginning of study conduction. Brief information regarding objectives and benefits of this research were explained to participants and informed consent was obtained before filling research questionnaire. All information were kept confidentimal and used only for purpose of statistical analysis .

Study Setting, Period, Design pnd Population:

We conducted a cross-sectional study among 199 doctors from beginning of the march to the beginning of the April, working in various hospitals,primary health care centers and college of medicine and density in Babylon . Doctors working in various government and private clinics and age of the doctors [27_65] years were the inclusion criteria. Doctors who did not give consent due to their lack of interest to participate in the study or those who could not participate due to a busy outpatient department were excluded from the study. We estimated the sample size using the formula for the estimation of proportion.We did stratified random sampling for the selection of study participants.Permission was obtained from the Director of Health Services before starting the study. Hospital authorities were informed about the study on the previous. An interviewer-administered structured questionnaire was used to capture data on sociodemographic details, occupational characteristics, perceptions .regarding obesity, and physical activity patterns .

Data collection tool:

The question- naire sheet consisted of 19 questions collected demographic data regarding age,gender,hight , weight and the presence of long- standing illnesses. Multiple-choice questions were used if they felt they had a disease they studied about, and the duration of the feeling. In addition,Drug that used to treated this illnes. Also Some questions were used to find out whether the specialist performs some exercises or not, what these exercises , and how many times he does them during the week,What are the reasons that prevent him from exercising. No identification questions were asked to ensure anonymity of the participants

Statistical analysis:

Data analysis was conducted using IBM SPSS statistical software version 21. Descriptive statistics test (tables,bar chat,histogram),Microsoft word(2019),excel were used to analyze the data.

IV-Results

Out of a total of 199 doctors that met the inclusion criteria,The specialty of Internal Medicine was the most involved in the study whereas the percentage was about (7%), seen below in the **figure(1)**.

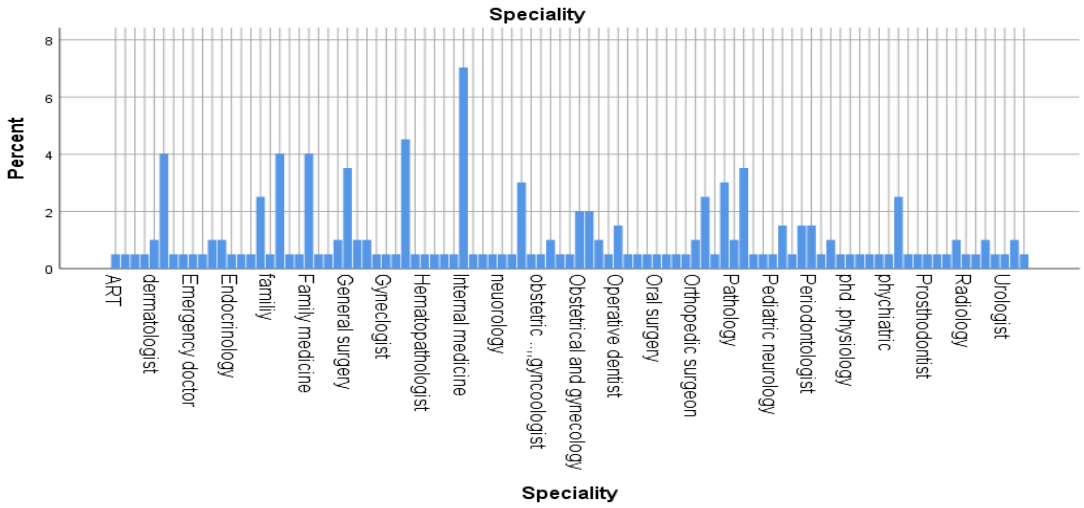
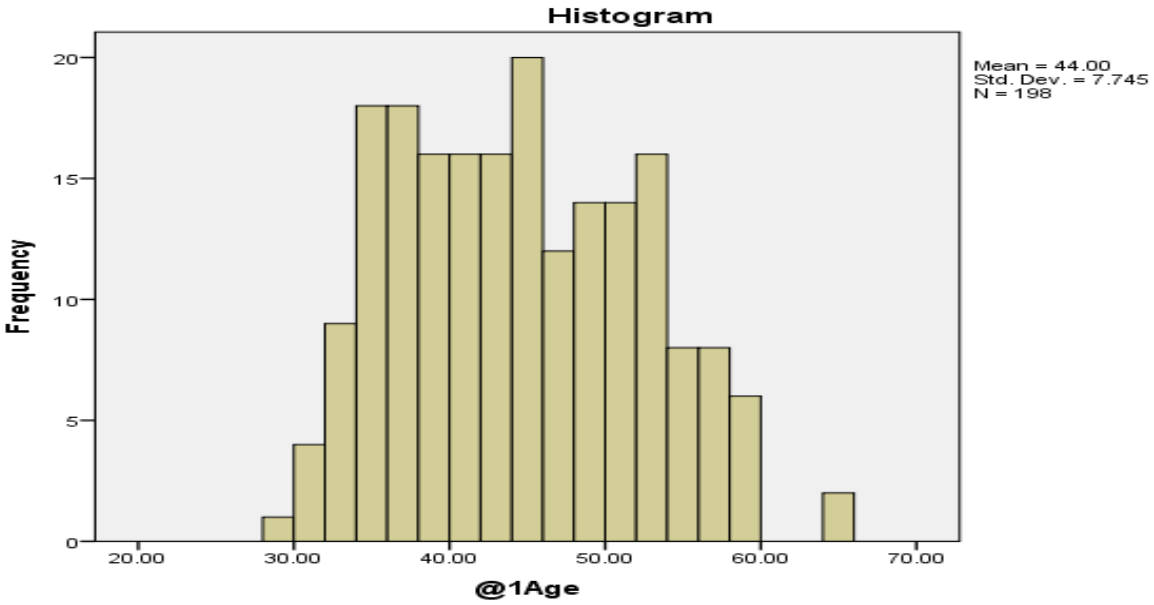


Figure1:Distribution of participants by speciality(%).

The distribution of participictants was presented in the **figure(2)**,we notice the average age of participitants was (44).



Figure(2): distribution of participants by age group.

Table(1): distribution of participants according to the body mass index.

SCORE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	normal	48	24.1	24.1	24.1
	overweight	99	49.7	49.7	73.9
	obesity	52	26.1	26.1	100.0
	Total	199	100.0	100.0	

Based on the **table(1)** above, the percentages of participants who were of normal weight, overweight and obese were (24.1%,49.7%,26.1) respectively.

Table(2): relationship between BMI and having a private clinic.

@5Haveprivateclinic * SCORE Crosstabulation

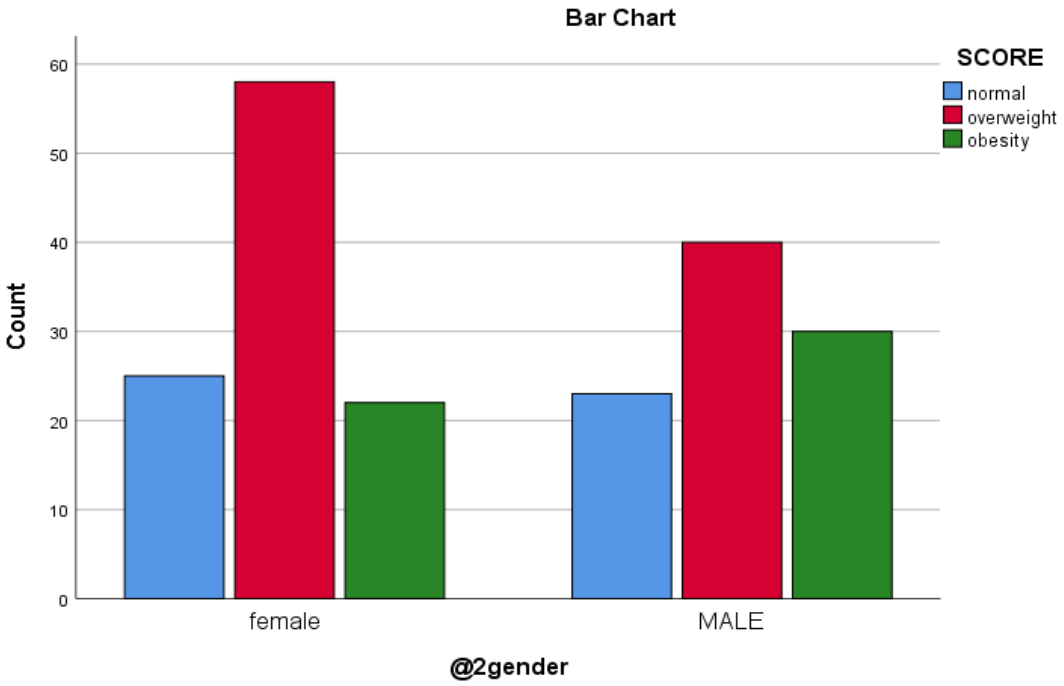
Count

		SCORE			Total
		normal	overweight	obesity	
@5Haveprivateclinic	no	18	30	8	56
	yes	30	69	44	143
Total		48	99	52	199

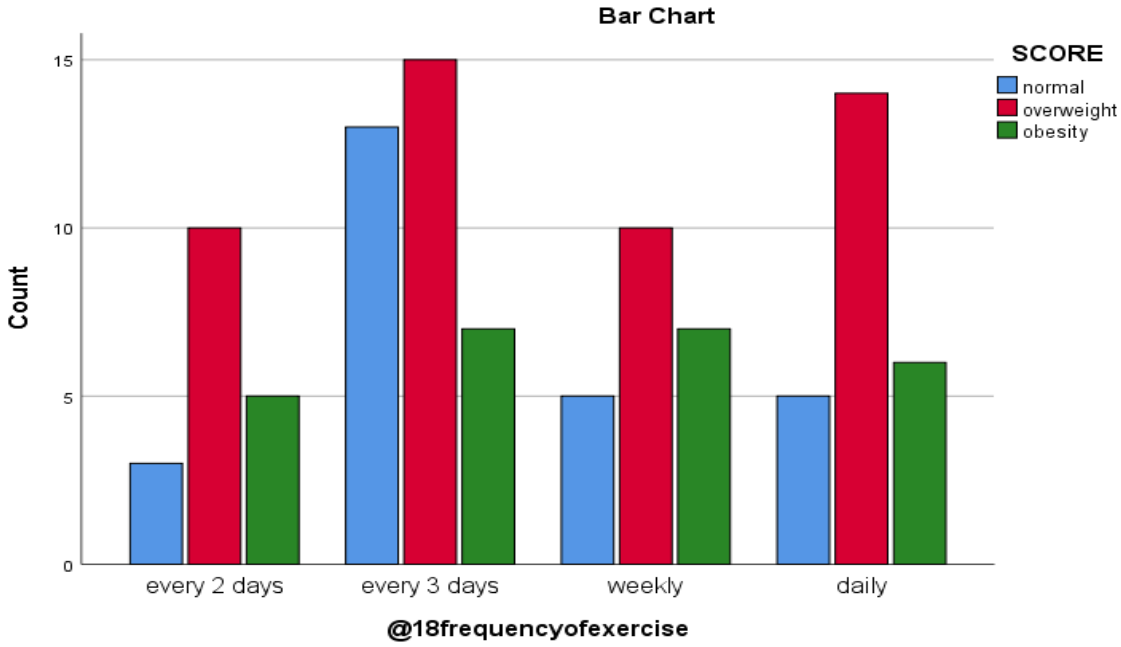
We notice in the **table(2)**, that doctors who have private clinics suffer from being overweight and obesity more than those who do not have them.

figure (3), shows differences in BMI distribution between genders. On average, female tend to have higher BMIs compared to male.

despite exercising, most of the participants are overweight and lesser extent are normal are seen in **figure(4).**



figure(3): gender disparity in BMI.



Figure(4): Relationship between the frequency of exercise and BMI.

V-Discussion

the percentages of participants who were of normal weight, overweight and obese were (24.1%,49.7%,26.1%) respectively, When compared with the pilot study in Port Harcourt, Nigeri where 62.7% were overweight and 27.5%obese;it is slightly lower in this study, while when compared with Prevalence of overweight among doctors in Brunei Darussalam where 38% were overweight, its slightly higher in this study.This shows that some doctors are not maintaining ideal body weight no matter the knowledge they have on nutrition.In this study, more males doctors 15.07% were obese compared to the females 11.05%.This was the opposite in the pilot study in Port Harcourt, Nigeri and Prevalence of overweight among doctors in Brunei Darussalam where more females physicians were obese compared to the males.

we notice in our study that doctors who have private clinics suffer from being overweight and obesity more than those who do not have them,where the percentages of doctors who have private clinic and overweight,obese (34.6%,22.1%) respectively.

While the percentages of doctors who don't have private clinic and overweight,obese (15%,4%) respectively.

Whereas we notice that doctors who have private clinic were much higher compared with those who don't have.

There could be several reasons why doctors with private clinics might be more likely to be obese than others. One factor could be the demanding nature of their profession, leading to irregular eating habits, stress eating, and limited time for exercise. Moreover, the sedentary nature of many medical specialties, such as radiology or pathology, could also play a role. However, it's essential to remember that weight can be influenced by a complex interplay of genetics, lifestyle factors, and individual circumstances, so it's not accurate to generalize about any particular group.

The study found the females were more overweight than males while the obesity in the males were more than females.
One of the biggest trigger events for obesity is actually childbirth. With each baby, a woman may put on a certain amount of weight, and we have this misconception, which is to eat for two while you're pregnant.

According to the United States Department of Health and Human Services, (https://www.womenshealth.gov/a-z-topics/thyroid-disease) women are more likely than men to have thyroid diseases, especially .after pregnancy and after menopause.
Thyroid produces thyroid hormone, which controls many activities in the body, including how fast a person can burn calories and how fast the heart beats. Thyroid diseases cause the organ to make either too much or too little of the hormone.
Depending on how much or how little hormone the thyroid makes, a person may feel restless or tired, or may lose or gain weight. Symptoms often develop slowly, over several years.

The results of our study show although some doctors who practicing exercise, they still suffering from overweight.
the persistence of obesity despite exercise underscores the multifactorial nature of this health issue. While regular physical activity is an important component of weight management and overall health, it must be complemented by dietary changes, reduction of sedentary behavior, environmental interventions, and attention to individual factors influencing obesity risk. A comprehensive approach that addresses the complex interplay of biological, environmental, social, and behavioral factors is necessary to effectively combat obesity and promote health within communities.

VI-Conclusion

The research may conclude that obesity is prevalent among doctors, potentially even more so than in the general population. It may identify various risk factors contributing to obesity among doctors, such as long work hours, stress, irregular eating habits, and limited opportunities for physical activity.

the research may advocate for increased education and support for doctors to help them manage their weight and adopt healthier lifestyles. This could include providing resources for nutrition education, stress management, physical activity promotion, and access to counseling or support groups.

Overall, the conclusion of research on obesity among doctors would likely emphasize the multifaceted nature of the issue and the need for comprehensive strategies to address it effectively within the healthcare profession.

Therefore the following recommendations are proposed: hospitals should have a canteen where good and healthy food is cooked for health care workers to eat while at work, doctors should be encouraged to eat homemade food always, and hospital management should monitor the types of snacks and drinks sold within the hospital. Sugared drinks and snacks should not be sold within the hospital premises only proper meals.

VII-Reference

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