

Assessment of Public Distress for Clients with Obesity in Al-Diwaniya City

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Zaien.alabdin1206a@conursinguobaghdad.edu.iq**ABSTRACT**

Background: The obesity epidemic is an international public health concern. Obesity is also considered one of the most serious issues of public distress associated with the problem of moving or sitting in public places and teasing or discrimination by others.

Objective: The study aimed to assess the assessment of public distress for clients with obesity in Al-Diwaniya City.

الخلاصة:

خلفية البحث: يمثل وباء السمنة مصدر قلق دولي للصحة العامة. كما تعتبر السمنة واحدة من أخطر قضايا الضيق العام المرتبطة بمشكلة التنقل أو الجلوس في الأماكن العامة والمضايقة أو التمييز من قبل الآخرين.

الهدف: هدفت هذه الدراسة إلى تقييم الضائقة العامة للمراجعين الذين يعانون من السمنة في مدينة الديوانية.

المنهجية: دراسة مقطعية وصفية لـ 262 مريضاً يعانون من السمنة تم اختيارهم بصورة غير عشوائية (كعينة ملائمة) من مستشفيات رئيسيين في مدينة الديوانية، جنوب العراق للفترة من 5 / كانون الأول / 2020 إلى 1 / أيار / 2021. تم جمع البيانات من خلال استبيان ذاتي يتألف من ثلاثة أجزاء؛ الورقة الاجتماعية الديموغرافية، ومؤشر الكتلة البدنية، واستبيان الضائقة العامة. تم تحليل البيانات باستخدام المنهج الإحصائي الوصفي والاستنتاجي بواسطة الحزمة الإحصائية للعلوم الاجتماعية الإصدار 25.

النتائج: شملت الدراسة 262 مريضاً يعانون من السمنة (43.1%) من الذكور و (56.9%) من الإناث بمتوسط العمر (34.92 + 10.036) سنة. كشفت الدراسة عن وجود تأثير للسمنة على الضائقة العامة، حيث أفاده أكثر من نصف مستوى متوسط بالضائقة العامة (56.1%) ، يليهم أولئك الذين أفادوا عن مستوى سيئ (37%) وأولئك الذين أفادوا عن مستوى جيد (6.9%).

الاستنتاجات: استنتج الباحث أن الضائق العام للمشاركين كان منخفض في مجال إغاظه أو تمييز الآخرين، في حين أنهم يعانون من ضائق عام معتدل في المناطق (مشاكل التنقل أو الجلوس في الأماكن العامة، والضائقة العامة الشاملة).

التوصيات: وأوصت الدراسة بضرورة حث وسائل الإعلام المرئية والمسموعة والمقروءة على بث برامج تثقيفية تحد من ظاهرة التتمر على البدناء. الكلمات المفتاحية: تقييم، ضائق عام، سمنة.

Methodology: A descriptive cross-sectional study of 262 obese clients 'non-probability selected (as a convenience sample) from two major hospitals in Al-Diwaniya City, south of Iraq from 5th of December, 2020 to 1st of May 2021. Data collection through a self-administration questionnaire consisting of three Parts: social-demographic sheet, corporal mass index, and the public distress questionnaire. The data were analyzed using the Descriptive and Inferential statistical method by Statistical Package of Social Sciences version 25.

Results: The study included 262 obese clients, (43.1%) are male and (56.9%) are female with mean age (34.92+10.036), years old. The study revealed that there is an effect of obesity on the public distress, were reported more than half reported moderate level public distress (56.1%), and followed by those who reported poor level (37%) and those who reported good level (6.9%).

Conclusion: The researcher concluded that the public distress of the participants is low in the domain

INTRODUCTION

Obesity can be defined as a disease in which excess body fat builds up to the point of adversely affecting health. Obesity is based on the accumulation of excess weight beyond the normal range of body weight for height. Obesity is now recognized as an illness that is chronic or not communicable ⁽¹⁾.

Globally, obesity accounted for 8% of deaths in 2017, which is an increase from 4.5% in 1990. This proportion varies widely throughout the world. More than 15 percent of the deaths in 2017 have been attributed to obesity throughout many middle-income countries, particularly throughout Latin America, Eastern Europe, North Africa, and Central Asia. This share is between 8 and 10 percent in most countries with high income. Japan and South Korea are the big outliers among the rich countries: there are only 5% of premature deaths attributed to obesity. While Obesity accounts for less than 5% of deaths in low-income countries in particular in Sub-Saharan Africa ⁽²⁾.

Gona et al., (2020) stated that approximately 4.7 million people died early as a result of being overweight. To put this into perspective: this was four times the number of people who died in road accidents and five times the number who died from HIV/AIDS in 2017 ⁽³⁾.

Al-Kaseer et al., (2018) reported that obesity among women in primary care in Baghdad, Iraq, was prevalent in 35.2 percent ⁽⁴⁾. The 2015 survey carried out in Iraq showed that overweight is 31.8%, obesity is 33.9%, and overweight and obesity are 65.7% ⁽⁵⁾.

of Teasing or discrimination by others, while, they have moderate public distress in the areas (Problems moving around or sitting in public places, and overall public distress).

Recommendation: The study recommended the necessity of Urging audiovisual and readable media to broadcast educational programs that limit the phenomenon of bullying against obese people.

Keyword: Assessment, Public Distress, Obesity.

Most research on stigmatization has focused on interpersonal stigma (such as family and friends' negative comments) or stigma caused by physical environmental barriers (For example, being unable to fit into a plane seat). More recently, researchers focused on the stigmatizing media environment. Stigmatic depictions of overweight people are common on TV, films, newspapers, and websites. Obese people are often portrayed in stereotypical positions and often mocked. And obesity is often depicted as the product of personal flaws like laziness or overindulgence ^(6,7).

AIMS OF THE STUDY

The study aimed to assess the assessment of public distress for clients with obesity in Al-Diwaniya City.

METHODOLOGY

This study was guided by a descriptive cross-sectional study design. The study was carried out for the period from (December 5th, 2020 to April 20th, 2021). A non-probability convenience sample of (262) adult clients with obesity who attend consultation clinics was selected. The study had been done at Teaching Hospitals in Al-Diwaniya City (Al-Diwaniya Teaching Hospital, and Maternity and Children Teaching Hospital).

- Study Instrument

The study instrument is a questionnaire designed according to the study objectives to assess the quality of life among adult clients with obesity. It is composed of three parts which include:

Part I: This part is concerned to the socio-demographic data of the clients and consists of (9) items including (age, gender, residence, marital status, occupation, educational attainment, monthly household income, Family members suffering from obesity and historical of chronic diseases).

Part II: Calculate an adult client's BMI by dividing his body weight (kilograms) by the square of his height (meters). A score of less than 18.5 is considered underweight, 18.5-24.9 is considered normal range, 25-29.9 is considered overweight, 30-34.9 is considered grade 1 obesity, 35-39.9 is considered grade II obesity, and more than 40 is considered grade III obesity (8).

Part III: public distress is divided into 2 Domain;

- Problems moving around or sitting in public places (3 item)
- Teasing or discrimination by others (2 items)

The questionnaire has been scored and evaluated on three levels of the Likert scale, (1) always point, (2) sometimes point, and (3) never, respectively, based on scores (1,2 and 3), which

have always been measured by cutoff point (0.66). Scores of responses are categorized according to the following:

- = (1-1.66) poor level.
- = (1.67-2.33) moderate level.
- (2.34-3.00) = good level.

Content validity was determined by evaluation of the questionnaire through a panel of (21) experts. Data were gathered out of (20) clients who are selected among those who attended Al-Diwaniya Teaching Hospitals. Reliability-testing was used as a statistical analysis method to determine the concordance among the items of the questionnaire using the reliability coefficient. The coefficient of correlation ($r=0,84$) demonstrates the tool's reliability.

The researcher met with the obese in the clinic hall to agree to take part in the study and to clarify the questionnaire for the study. In order to achieve the aims of the study, the data collection process began (14th February 2021 to 4th April 2021). It took (15-25) minutes to interview each client. The data analyzed by using the Statistical Package for Social Sciences (SPSS) version 25 application of statistical analysis system.

RESULTS

Table (1): Distribution of the Study Sample According to The Socio demographic Data (N=27).

L.	Variables	f	%	
1	Age/years M±SD= 34.92+10.036	<20years old	19	7.3
		20-30years old	78	29.8
		31-40years old	80	30.5
		41-50 years old	65	24.8
		51 and older	20	7.6
		Total	262	100.0
2	Gender	Male	113	43.1
		Female	149	56.9
		Total	262	100.0
3	Residency	Rural	132	50.4
		Urban	130	49.6

		Total	262	100.0
4	Marital status	Single	70	26.7
		Married	150	57.3
		Widowed	31	11.8
		Separated	11	4.2
		Total	262	100.0
5	Occupation	Unemployed	78	29.8
		Self-employment	88	33.6
		Student	23	8.8
		Employee	73	27.9
		Total	262	100.0
6	Education	Unable to read and write	11	4.2
		Read and write	4	1.5
		Elementary school graduate	23	8.8
		Middle school graduate	26	9.9
		High school graduate	81	30.9
		Diploma	25	9.5
		Bachelor's	69	26.3
		Master's and above	23	8.8
Total	262	100.0		
7	Monthly income	Enough	67	25.6
		Certain limit enough	93	35.5
		Not enough	102	38.9
		Total	262	100.0
8	Family members suffering from obesity	Yes	137	52.3
		No	125	47.7
		Total	262	100.0
9	Chronic diseases	Non	181	69.1
		Hypertension	38	14.5
		D.M.	28	10.7
		Heart diseases	15	5.7
		Total	262	100.0

F: Frequency, %: Percentage, M: Mean, SD: Standard deviation

Table 1 shows the results reflect descriptive statistics of socio-demographic characteristics in terms of frequencies and percentages. Out of (262) subjects participated in our study, the majority of the age group was among the ages 31-40 years of old and constituted (35.5 %) of the study sample, the older than 50 years were the small ratio.

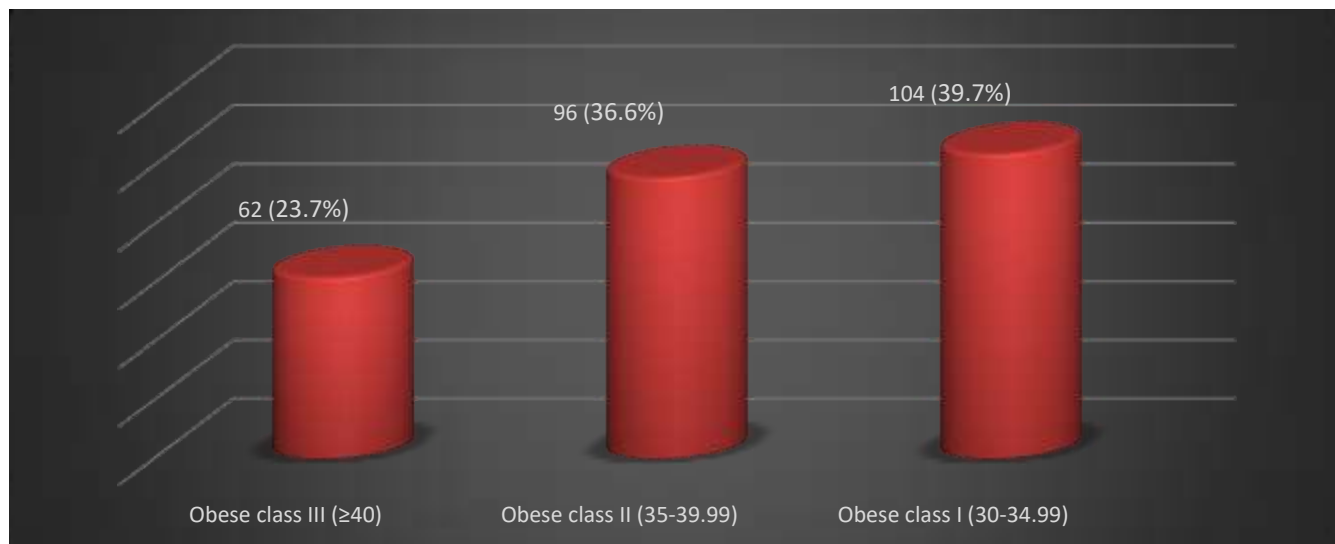
Gender-related results indicate that female was more than half of study findings and represented that (56.9 %) out total number and the remaining proportion was male.

In terms of marital status, the married participants were predominated, it constituted (57.3 %), and also, the separated were few proportions.

Among the study findings, most of participants were Self-employment and High school graduated with not enough monthly income, it composed (33.6, 30.9 & 38.9 %) respectively.

Finally, in this table, most of study sample were have their family members suffering from obesity without chronic diseases, it constituted (52.3 & 69.1 %) respectively.

Figure (1): Distribution of Study sample by their BMI



Among the study findings, it is obvious that the obese class I ranged (30- 34.99) were predominated out total of 262 subjects and constituted the majority (39.7 %). In contrast, third-degree obesity (≥40) recorded the lowest percentage.

Table (2): Overall Assessment of the Public Distress

L.	Public distress	Responses	F	%	S.d.	M.s.	Ass.
A Problems moving around or sitting in public places							
1	Because of my weight, I worry about fitting into seats in public places (e.g., theaters, restaurants, cars, airplanes)	Always	91	34.7	0.811	1.96	Moderate
		Sometime	90	34.4			
		Never	81	30.9			
		Total	262	100.0			
2	Because of my weight, I worry about fitting through aisles or turnstiles	Always	80	30.5	0.731	1.93	Moderate
		Sometime	121	46.2			
		Never	61	23.3			
		Total	262	100.0			
3	Because of my weight, I worry about finding chairs that are strong enough to hold my weight	Always	71	27.1	0.767	2.05	Moderate
		Sometime	108	41.2			
		Never	83	31.7			
		Total	262	100.0			
B Problems moving around or sitting in public places							
4	Because of my weight, I experience ridicule, teasing, or unwanted attention	Always	148	56.5	0.528	1.45	poor
		Sometime	110	42.0			
		Never	4	1.5			
		Total	262	100.0			

5	Because of my weight, I experience discrimination by others	Always	139	53.1	0.500	1.47	poor
		Sometime	123	46.9			
		Total	262	100.0			

"f =Frequency, %= Percentage, M. S. = Mean of score, cut off point (0.66), poor (mean of score 1-1.66), moderate (mean of score 1.67-2.33), good (mean of score ≥ 2.34), S. d= Stander deviation"

Table 2 shows that statistical cut-off point, this table illustrates the obese client's responses were of moderate quality of life at all items in regarding public distress (M.s.=1.67-2.33).

Figure (2): Overall Assessment of the Public Distress.

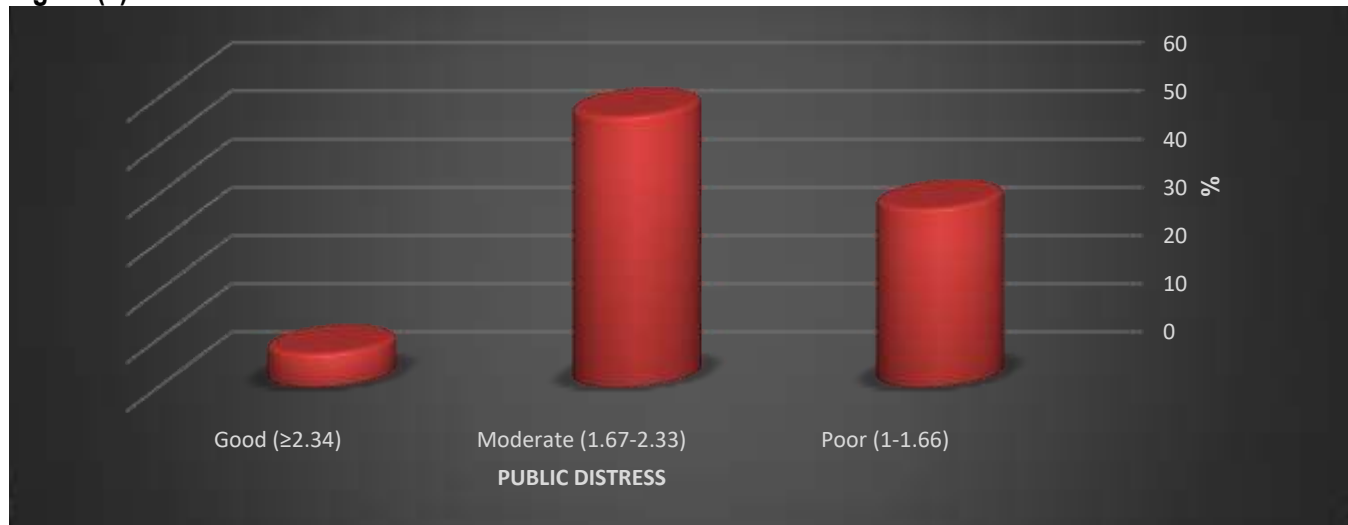


Figure 2 shows overall, according to the analysis mean of score, the findings indicate that the majority (56.1%) of obesity clients were of moderate quality of life related to public distress at mean +S. D.= 1.70+0.591.

DISCUSSION

The study finding in the table (1) regarding the socio- demographic characteristics of the sample, that out of the 262 clients who participated in the study, the age group (31-40) was the highest among all groups with a percentage of 30.5, while the mean age + S.D = 34.92 \pm 10.036 for participants.

This result supported by the study done by Ramasamy et al., (2020) found that the mean of sample age was (37.3) out of 88 participants (9). The study conducted by Almojarthe, et al., (2020) also agreed with the result of the current study regarding clients with obesity' age, as it was found that the mean age of the obese adults who participated in the study was (31.6 years) out of 198 participants (10). Another study, conducted (11) supports this result, where they found that the mean for age and S.D was 27.7 \pm 7.0 for 320 participants.

The findings show the distribution of the studied sample according to description, results show that most of the participants in the study were females, which represented (56.9 %) of the total number of participants, due to the females' more responses to participants in the study. This result agreed with the study done (12) in Basra, south Iraq who found in their study that, the obese females who participated in the study were more than half (54.7 %). Also, the study conducted in America (13) also showed that more obese females in the study sample were more than males. While, (14) found that more than half (53%) of the sample were males. these findings are inconsistent with our findings.

As for the residence, more than half (50.4%) of obese adults from rural residents, this result is attributed to the lack of consultation clinics for obese

clients in rural areas. This result disagrees with the result conferred by the study done ⁽¹⁵⁾, found more than three quarters (76.7%) of the sample urban resident. Another study, conducted ⁽¹⁶⁾, found that the vast majority of the participant from urban areas.

Regarding marital status, more than half (57.3%) of obese adults are married. ⁽¹⁷⁾ Found that majority (81.7%) of the sample were married. Hauber et al., (2010) found more than half (57.4%) of the sample were married, these findings consistent with the present study finding ⁽¹⁴⁾.

This result disagrees with the result conferred by the study done ⁽¹¹⁾ which found that more than half (57.5%) of our population consisted of single adults. Also, ⁽¹⁵⁾ found that less than two-thirds (62.6%) of the sample unmarried.

Concerning occupations, one-third (33.6%) of obese adults are self-employed. Hamad and Abdul Wahid, (2014) found that the majority of the sample was unemployed, these findings consistent with the present study's findings ⁽¹⁶⁾. This result disagrees with the result conferred by the study done ⁽¹⁵⁾ which found that 43.5% of the samples were students.

This finding can be explained because the researchers collected the sample from (8 am) to (1 pm) times during the official working time, where the client visited consulting clinics, where most of the sample was unemployed and self-employed because they can review at any time, while the employee or student needed permission from his manager to visit the consulting clinics.

Regarding the level of education, the study showed that less than two-thirds (63%), of the participating obese adults in the study, are high school graduates. This result supported by the study done ⁽⁹⁾ found that the highest percentage (46%) of the sample high school graduated. Also, Hauber et al., (2010) found that the highest percentage (32.3%) of the sample high school graduated. While Abbas et al., (2018) found that the majority (85.6%) had a

university or higher level of education. This finding disagrees with our finding.

Regarding to the monthly income, more than one third (38.5%) of them have an insufficient monthly income. This result agrees with the result conferred by the study done by Almojarthe et al., (2020), and Hamad, and Abdul Wahid (2014).

As for the family members suffering from obesity, more than half (52.3%) of obese adult family members suffering from obesity, this result is consistent with the result of a study conducted ⁽¹⁸⁾, which showed that more than half (54%) of the sample had a number of their family members suffering from obesity. While, this result disagrees with the result conferred by the study done by Malik et al., (2016) this showed (68.1%) of the sample did not have any obese family members.

Regarding to chronic diseases, more than two-thirds (69.1%) of them have not chronic diseases. Abbas et al., (2018) found that the vast majority (92.7%) of the sample did not have chronic diseases; these findings supported the present study finding. Another study, conducted ⁽¹⁵⁾ supports this result, where they found that majority (84%) do not have any disease.

Concerning the distribution of the study sample according to obesity classification in figure (1), the results show that the majority of the study participants suffered from obese class I, more than one-thirds (39.7%) form participants, followed by those who reported class II, and those who reported class III. The results of the study are similar to a study ⁽¹⁴⁾ in the USA, which found that the mean BMI was (32.6) at class II obesity. While ⁽¹⁰⁾ in the study in Abha, Saudi Arabia, found that less than half (49.5%) of adults had class III obesity. Another study, conducted ⁽⁹⁾ in Indian found that the mean BMI was (39.6) for class II obesity, these results are inconsistent with our findings.

Regarding to the public distress of obese adults' clients in the table (2), the finding indicated

that the obese adult clients have a moderate level of quality of life in the public distress at the mean (1.70). Also, figure (2) shows more than half (56.1%) of obese adult clients have a moderate quality of life related to public distress, followed by those who reported poor levels (37%), and those who reported good levels (6.9%). But the results indicated that obese adult clients reported poor quality of life in relation to teasing and discrimination by others. Hauber et al., (2010) found that obese adults had problems moving around or sitting in public places and experienced teasing or discrimination by others because of weight. The researcher sees that increase weight may affect obese adult mobility in public and increase exposure to teasing and discrimination by some people or may have problem in some area like sitting or chose of clothes these things may push them to isolate, low self-esteem, and not mix with others to avoid these inconveniences.

CONCLUSION

The researcher concluded that the public distress of the participants is low in the domain of Teasing or discrimination by others, while, they have moderate public distress in the areas (Problems

moving around or sitting in public places, and overall public distress).

RECOMMENDATIONS

Based on the results and conclusions of the present study; the researcher recommends the following:

1. Posting special posters explaining the consequences of obesity and the importance of preventing it to avoid its subsequent complications.
2. The necessity of confirming the obese client to organize a special schedule to visit the dietitian periodically.
3. Urging the Ministry of Health to Conduct awareness-raising programs targeting the younger segment of society (schools, universities), as they are in a transitional phase to control their weight.

Ethical Clearance: The Institutional Review Board (IRB) at the University of Baghdad, College of Nursing approved the study to be conducted. The study protocol meets both the global & the Committee on Publication Ethics (COPE) standards of respecting humans' subjects' rights.

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