

ORIGINAL ARTICLE

PREVALENCE OF OBESITY BIAS AMONG YOUNG ADULTS IN BAGHDAD CITY, IRAQ

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ABSTRACT

Obesity became a global concern more than 40 years ago as a result of a continual increase in prevalence. The aim was to determine the prevalence of obesity stigmatization among young adults in Baghdad city. A cross-sectional study was conducted among 305 young adults (161 males & 144 females) living in Baghdad, Iraq Through convenient sampling. Respondents' self-administered questionnaire was utilized to gather data. Attitude towards obese people (ATOP) questionnaires were used. Around two-thirds of the respondents (64.6%) had a positive attitude towards people living with obesity. Only 35.4% had a negative attitude and obesity bias. There was a significant association (P -value=0.034) between obesity bias and body mass index (BMI). There was no significant association between gender, educational level, and occupation with obesity bias (P -value= 0.630, 0.546, and 0.586), respectively. In conclusion, 35.4% of the respondents had unfavorable opinions of obese persons. BMI is the most significant factor that was linked to a pessimistic attitude

Keywords: Obesity, Stigmatization, Young adults, Baghdad, Bias

INTRODUCTION

In recent years, being overweight or obese has emerged as a major global health concern. The World Health Organisation (WHO) defines obesity as an abnormal accumulation of fat in the body that may have an impact on health and result in various issues.¹ A body mass index (BMI) of 30 kg/m² or more is considered obesity in adults, and those who meet this criteria are at an increased risk of developing diabetes, osteoarthritis, and cardiovascular disease.² Because of this, the field of bariatric medicine which focuses on the causes, prevention, and treatment of obesity has become more well-known³. The prevalence of obesity and overweight became a notable condition starting early in 1980 all over the world. According to the latest WHO reports, in 2016, overweight adult people reached 1.9 billion while people living with obesity were 650 million.⁴ Low- and middle-income countries reported up to 12% and 28.8% of obese and overweight people respectively.⁵ Iraq ranked number 23 among the highest percentage of obesity worldwide, with 30.4% of people living with obesity⁴.

Patients' and society's attitudes toward obesity are essential factors to consider. Attitudes can be characterized as stable entities kept in memory or as a judgment based on the information now

accessible.⁶ Attitudes are complicated and can change and influence behavior, as commonly acknowledged.⁶ Individual characteristics, media, social norms, and experiences all influence attitudes about obesity⁷. Weight bias is adverse attitudes and opinions toward others because of their increasing body weight. These unfavorable attitudes manifest themselves in categorizing and prejudice contrary to people who are overweight or obese.⁸ When someone feels bad about their size or weight, it's known as internalized weight prejudice.⁹ Obesity stigma, a social symbol or term applied to a biased individual, can arise from weight bias.¹⁰ The term "obesity stigma" describes behaviors against fat individuals that can result in marginalization, injustice, and exclusion. Some examples of these behaviors are when obese people are denied access to adequate healthcare or face discrimination at work or in their educational institutions.¹⁰ People living with obesity regularly face bias from health care providers and others, which can lead to marginalization and stigmatization.¹¹ Furthermore, nurses' poor attitudes and views might impact patient care and outcomes.¹¹ Weight stigma was also mentioned as a barrier to physical exercise and sports practice.¹² In addition, a lot of psychological and social effects like depression, anxiety, and community refusal were stated by Obesity Action Coalition (OAC).¹³

Young adults aged 18-25 years old were classified as “emerging adulthood” because it represents the change from teenager to adulthood, which is a vital period for moral and emotional development like completing their values background and creating their body image.¹⁴ Then, around mid-adulthood, perceptiveness steadily develops, but quickly declines as we get older.¹⁵ The purpose of the study was to ascertain the prevalence of obesity stigmatization among young people in Baghdad as well as the contributing variables.

METHODS

A cross-sectional survey of 305 adults (161 men and 144 women) who resided in Baghdad, Iraq, was carried out. Data were collected using self-administered questionnaires. Respondents were recruited using the non-probability convenient sampling method from 1st February 2021 till the end of May 2021 through WhatsApp & Facebook group advertisements. Iraq's main city, Baghdad, has an estimated 7 million inhabitants. The inclusion criteria include those aged between 18-25 years old only and exclude those who refused to participate. The questionnaire consisted of 20 questions and two parts, where the first part included social and demographic questions (gender, educational level, and occupation) and Body Mass Index (BMI), and the second part included questions related to obesity. The ATOP (The Attitudes Towards Obese Persons)¹⁶ Scale, which has 20 questions scored on a four-point Likert-type scale (strongly disagree to strongly agree), was used to measure the obesity stigmatization component of our study. A higher score denotes more favorable sentiments towards obese persons after reverse-coding the 13

negatively worded questions, adding 60 to the summated score, and summing the 20-item scores. The ATOP questionnaires were translated Back-to-back from English to the Arabic language to ensure they were valid and a pretest was done with 20 participants to ensure the questions were easy to understand.

A consent form was taken from the respondent before answering the questions as participants needed to read the instructions and give agreement to participate before the questionnaire window opened to them, Those who refused to tick on consent approval were shown and thanks message and not allowed to proceed with questionnaires. Al-Bayan University's College of Nursing provided ethics approval. With SPSS version 24, statistical analysis was carried out. For numerical data, means and standard deviations (SD) were utilized, whilst frequency and percentage were employed for categorical variables. Using chi-square analysis, the relationship between the variables was examined, with a P-value of 0.05 or less being considered significant.

RESULTS

The result of this study was based on the analysis of 305 full questionnaires by young adult people who accepted to participate in this study. Males were slightly more than half of the respondents (52.8%), according to Table 1. Almost two-thirds (63%) were still students, with only 21.3% working full-time. According to their BMI, more than half of the individuals (51.1%) were normal weight, and just (11.1%) were obese. Approximately two-thirds of the sample (64.6%) had a favorable view toward people living with obesity.

Table 1: Sociodemographic characteristics of the respondents

Sociodemographic variables	Number	Per cent
Gender		
Male	161	52.8
female	144	47.2
Education		
Elementary school	11	3.6
Secondary	144	47.2
University	150	49.2
Occupation		
Unemployed	240	78.7
Employed	65	21.3
body mass index (BMI)		
Underweight & Normal	11	3.6
Normal	157	51.5
Overweight & Obese	103	33.8
obese	34	11.1
Attitude towards people living with obesity		
Negative Attitude	108	35.4

Positive Attitude	197	64.6
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In Table 2A, when asked if persons living with obesity feel as happy as people who are not obese, the majority (86.2%) agreed or strongly agreed. Nearly three-quarters (71.5%) disagreed or strongly disagreed with the statement that persons living with obesity are not as good as those who are not obese. They also (89.5%) did not agree with thinking that people living with obesity were less successful in their work. Slightly similar percentages of those agreed and disagreed with the willingness of people living with obesity to

marry anyone who is obese (49.2% versus 50.8% in the same above order). Slightly similar percentages were also obtained when asking about the attitude regarding the tidiness of people living with obesity; 50.5% thought they were untidy. Most of our sample (65%) thought that people living with obesity were unsatisfied with their body images. Even 65.9% thought people living with obesity were not as self-confident as other people.

Table 2A Obesity Bias Questionnaires

Questions	Number	Per cent
People living with obesity are as happy as non-obese people		
Strongly Disagree	6	2.0
Disagree	36	11.8
Agree	134	43.9
Strongly Agree	129	42.3
Most people living with obesity feel that they are not as good as other people		
Strongly Disagree	50	16.4
Disagree	168	55.1
Agree	69	22.6
Strongly Agree	18	5.9
Most people living with obesity are more self-conscious than other people		
Strongly Disagree	19	6.2
Disagree	156	51.1
Agree	107	35.1
Strongly Agree	23	7.6
Obese workers cannot be as successful as other workers		
Strongly Disagree	115	37.7
Disagree	158	51.8
Agree	27	8.9
Strongly Agree	5	1.6
Most non-obese people would not want to marry anyone who is obese		
Strongly Disagree	27	8.9
Disagree	123	40.3
Agree	129	42.3
Strongly Agree	26	8.5
Severely people living with obesity are usually untidy		
Strongly Disagree	16	5.2
Disagree	135	44.3
Agree	122	40.0
Strongly Agree	32	10.5
People living with obesity are usually sociable		
Strongly Disagree	19	6.2
Disagree	129	42.3
Agree	126	41.3
Strongly Agree	31	10.2
Most people living with obesity are not dissatisfied with themselves		
Strongly Disagree	14	4.5
Disagree	93	30.5
Agree	171	56.1
Strongly Agree	27	8.9
People living with obesity are just as self-confident as other people		
Strongly Disagree	8	2.6
Disagree	96	31.5
Agree	169	55.4

Strongly Agree	32	10.5
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Table 2B Obesity Bias Questionnaires

Most people feel uncomfortable when they associate with people living with obesity		
Strongly Disagree	16	5.2
Disagree	118	38.7
Agree	143	46.9
Strongly Agree	28	9.2
People living with obesity are often less aggressive than non-obese people		
Strongly Disagree	21	6.9
Disagree	133	43.6
Agree	130	42.6
Strongly Agree	21	6.9
Most people living with obesity have different personalities than non-obese people		
Strongly Disagree	10	3.3
Disagree	107	35.1
Agree	165	54.1
Strongly Agree	23	7.5
Very few people living with obesity are ashamed of their weight		
Strongly Disagree	13	4.3
Disagree	98	32.1
Agree	171	56.1
Strongly Agree	23	7.5
Most people living with obesity resent normal-weight people		
Strongly Disagree	9	3.0
Disagree	71	23.3
Agree	190	62.3
Strongly Agree	35	11.4
People living with obesity are more emotional than non-obese people		
Strongly Disagree	14	4.6
Disagree	121	39.7
Agree	146	47.9
Strongly Agree	24	7.8
People living with obesity should not expect to lead normal lives		
Strongly Disagree	6	2.0
Disagree	65	21.3
Agree	164	53.7
Strongly Agree	70	23.0
People living with obesity are just as healthy as non-obese people		
Strongly Disagree	12	4.0
Disagree	113	37.0
Agree	137	44.9
Strongly Agree	43	14.1
People living with obesity are just as sexually attractive as non-obese people		
Strongly Disagree	21	6.9
Disagree	204	66.9
Agree	66	21.6
Strongly Agree	14	4.6
People living with obesity tend to have family problems		
Strongly Disagree	14	4.6
Disagree	78	25.6
Agree	184	60.3
Strongly Agree	29	9.5
One of the worst things that could happen to a person would be for him to become obese		
Strongly Disagree	9	3.0
Disagree	99	32.5
Agree	165	54.0
Strongly Agree	32	10.5

In table 2B, when asked if they feel comfortable dealing with obese persons, 56.1% mentioned feeling uncomfortable with them. They also (61.6% of the sample) agreed and strongly agreed that people living with obesity have a different personality from non-obese. Around 63.6% of the sample thought people living with obesity were ashamed of their weight. Most research participants (73.7%) said that most obese persons harbor hatred towards those of normal weight. Furthermore, 76.7 percent of them said that obese individuals could never hope to lead regular lives like others. A higher proportion (73.8%) said

that those who are fat are not as appealing to men as those who are not. Approximately 64.5 percent of our sample said that being obese may be one of the worst things that could happen to a person, and 69.5 percent believed that those who are obese typically have issues in their families.

Table 3 shows a significant association (P -value =0.034) between the person's attitude toward obesity and BMI. Only 14.7% of obese participants showed negative attitudes, while 40.8% of normal-weight people had a negative attitude toward obesity. There was no significant association between attitude and gender, educational level, or occupational status with P values of (0.630, 0.546, and 0.383) respectively.

Table 3 Association between sociodemographic variables and obesity bias

Variables	Negative attitude		Positive attitude		P-value
	N	%	N	%	
Gender					0.630
Male	55	34.2	106	65.8	
Female	53	36.8	91	63.2	
Education					0.546
Primary school	5	45.5	6	54.5	
Secondary	47	32.6	97	67.4	
University	56	37.3	94	62.7	
Occupation					0.383
Unemployed	82	34.2	158	65.8	
Employed	26	40.0	39	60.0	
body mass index (BMI)					0.034*
Underweight	3	27.3	8	72.7	
Normal	64	40.8	93	59.2	
Overweight	36	35	67	65	
Obese	5	14.7	29	85.3	

DISCUSSION

The most important finding is that the negative attitude toward obesity among youth in Baghdad city was alarming (35.4%). These results agree with the results obtained by Rajib et al. 2019.¹⁷ The current study looked at the frequency and types of stigmatization attitudes related to obesity in a sample of young adults in Baghdad. The findings show that in this group, unfavorable opinions about fat people are frequently supported. In contrast to research by Rajib et al. (2019),¹⁷ in which there was a good attitude towards obesity of 49% and a negative attitude of 51%, our results are in line with a study by Christian et al. (2020)¹⁸.

Our findings also suggest that there are two distinct kinds of views toward obese persons, suggesting that the stigmatization of these individuals is complex. One set of ideas is that those who struggle with obesity are suffering, and

the other is that they are less valuable than those who are not heavy. Obese persons feel ashamed of their weight, have low self-esteem, and are perceived as less attractive, according to suffering attitudes. Obese people's health is a major worry, and these opinions reflect that concern. In contrast, inferiority attitudes included opinions that people living with obesity are less successful employees, have personality and hygiene differences from non-obese people, have significant expectation difficulties, and should not live normal lifestyles.

Obesity stigmatization is multifaceted, as evidenced by the fact that biased beliefs regarding the suffering and perceived inferiority of people living with obesity were unconnected to one another.¹⁹ Our findings that people living with obesity had similar negative sentiments regarding obesity as non-obese people are consistent with a larger body of research demonstrating that people from marginalized groups often internalize the

bias they face.^{20,21} Our overall levels of obesity stigmatization are similar to those reported in a large sample of U.S. individuals involved in weight reduction assistance programs, according to previous research on obesity prejudice, which also revealed that the prevalence of unfavorable attitudes is similar in overweight and normal-weight persons.²² These results show how widespread bias against fat is among a variety of people. Knowledge regarding obesity is essential, especially among university students, and may reduce bias and stigmatization towards obese people²³. One of our study's limitations is that it was only conducted in the capital of Iraq; also, problems with data collecting and recruiting may have an impact on the study's findings.

CONCLUSION

According to the results, 35.4% of the respondents had unfavorable opinions of obese persons. BMI is the most significant factor that was linked to a pessimistic attitude. The consequences of this stigma such on mental health, self-esteem, access to healthcare, employment opportunities, and overall, well-being of obese individuals with suggestions of interventions could be done to lower the negative attitude among the younger population

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Competing interests: none

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