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Determination of obesity prejudice levels of health professionals working in Gaziantep province

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ABSTRACT

Aims: The aim of this study was to measure the obesity prejudice and empathic tendency of health personnel working in public hospitals in Gaziantep.

Methods: 458 healthcare professionals working in Gaziantep province participated in the study. Data were collected using "GAMS-27 Obesity Bias Scale (OBS)" and "Empathic Tendency Scale (ETS)".

Results: It was determined that 17.5% of the healthcare professionals were unprejudiced, 53.9% were prone to prejudice and 28.6% were prejudiced. However, 9.8% of them stated that their attitudes towards obese individuals were prejudiced and 90.2% were not prejudiced. Single people were found to be more prejudiced against obesity than married people. It was found that emergency department were more prejudiced against obese individuals and had lower empathic tendencies compared to other units. Obesity prejudice scores and empathic tendency scores of those who were satisfied with their physical appearance were significantly higher than those who were not satisfied. There was a weak positive relationship between obesity prejudice score and empathic tendency score, and a weak negative relationship between age and number of children. There was a weak positive correlation between empathic tendency score and obesity prejudice score, and a weak positive correlation between age and number of children and empathic tendency score. The mean score of the Empathic Tendency Scale (ETS) of the healthcare professionals was 69.42.

Conclusion: It was determined that healthcare professionals, especially those who considered themselves as thin, young and single, were prejudiced against obesity.

Keywords: Obesity, prejudice, healthcare professionals, hospital

INTRODUCTION

Obesity prejudice is a concept that includes negative attitudes, stereotypes and prejudices towards overweight and obese individuals and is defined as "obesophobia".[1] Research shows that obese individuals often encounter this prejudice in education, business life, health services and even family environment.[2]

Since healthcare professionals are in contact with patients at every stage from their admission to the hospital to their treatment processes, prejudiced attitudes among this group are particularly striking.[3] Prejudices against obese individuals create a worrying situation for various reasons. For example, factors such as the difficulty in caring for obese individuals, high risk of complications, difficulties in positioning and moving them, and inadequate materials to be used in treatment and care can negatively affect the attitudes of health professionals.[4]

This situation can lead to prejudice on the part of health professionals, causing obese people to avoid treatment, to cancel appointments and to delay the use of preventive health services.[5] In healthcare services, the patient-doctor relationship starts with the individual's application to the hospital and continues during treatment planning and follow-up. Therefore, prejudiced attitudes of healthcare professionals can negatively affect not only the health status of individuals but also the effectiveness of healthcare services.[2]

Empathy is defined by Rogers as "the process by which an individual puts himself/herself in the other person's shoes, accurately understands his/her feelings, thoughts, perceptions and emotions and communicates them to him/her".[6] Health professionals' establishing helping (therapeutic) relationships is considered a fundamental part of their profession.[7] The literature emphasizes that there is a strong positive

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relationship between helping behavior and empathy and shows that empathy is one of the most essential measurements of the therapeutic relationship.[8] Moreover, it is stated that effective use of empathy positively affects patient satisfaction and general health status.[9,10] It is stated that individuals who are met with empathy feel that they are understood and cared for, which contributes to their feeling better.[11,12]

Empathy is considered as a two-dimensional concept, namely empathic tendency (ET) and empathic skill (ES). Empathic tendency refers to an individual's potential to empathize and is defined as the willingness to understand the feelings of others, to be affected emotionally and to help.[13] Studies reveal that individuals with high empathic tendency exhibit helping behaviors more.[6,13]

There are various findings in the literature that health professionals may exhibit prejudiced attitudes towards obese individuals. It is thought that there is a relationship between empathic skills and prejudices. Therefore, with this study, it is thought that determining the factors associated with obesity prejudice and empathic skill status in health workers will be guiding in conducting intervention studies to reduce obesity prejudice.

METHODS

Ethics of Research

Ethics committee approval was obtained from Gaziantep University Non-interventional Clinical Researches Ethics Committee (Date: 26.01.2023, Decision No: 182.22.07). All procedures were carried out in accordance with the ethical rules and the principles of the Declaration of Helsinki. Written permission was obtained from Gaziantep Provincial Directorate of Health to reach the participants. After the permissions were completed, the questionnaire form was sent to the healthcare professionals through the researchers. Voluntary consent was obtained for the participants to participate in the study before the questionnaire. Data was collected via Google form.

Type of Research

The model of this research is a relational screening model that aims to examine whether two or more variables vary together. At the same time, the research is a cross-sectional and quantitative study.

Sample

The population of the study consists of all health professionals and auxiliary staff working in public hospitals in Gaziantep province. The sample size of the study was determined as 319 people with a 95% confidence interval, 5% error margin, medium effect size and 80% power using the G power program version 3.1.9. 458 health workers working in Dr. Ersin Arslan Hospital, Abdulkadir Yüksel State Hospital, Oğuzeli District State Hospital, 25 December State Hospital and Şehitkamil State Hospital located in the central districts of Gaziantep participated in the study. Inclusion criteria were determined as working in the hospital and volunteering to participate in the study, exclusion criteria were determined as not wanting to participate in the study.

Data Collection Tools

Sociodemographic characteristics: In this study, the questionnaire form was developed by the researchers in line with the literature and consisted of 19 questions in total. In the questionnaire form, socio-demographic characteristics of the participants such as age, gender, marital status, and educational status were questioned. In addition, there were questions about the individuals' satisfaction with their physical appearance, whether there were obese individuals in their immediate environment, whether they felt obese in the past, and whether they had dieting experience. BMI <18.5: underweight. BMI 18.5-24.9: normal weight. BMI ≥25.0: overweight. BMI ≥30.0: obesity.

GAMS-27 Obesity Prejudice Scale (OPS): The GAMS-27 Obesity Prejudice Scale (OPS), developed by Ercan et al.[14] in 2015, is a scale consisting of 27 items using a 5-point Likert scale designed to assess obesity prejudice. In the reliability analysis of the scale, Cronbach-alpha reliability coefficient was found to be 0.847. In this study, Cronbach alpha was found to be 0.883. The items are divided into two groups as positive and negative statements and scored differently:

Positive Items (2, 4, 7, 10, 11, 11, 14, 15, 17, 20, 22, 25, 27): Scored from 5 to 1 starting from "Strongly agree". Negative Items (1, 3, 5, 6, 8, 9, 9, 12, 13, 16, 18, 19, 21, 23, 24, 26): Scored from 1 to 5 starting from "strongly agree". The scores that can be obtained from the Obesity Prejudice Scale (OPS) vary between 27 and 135. Scale scores are categorized as 68 points and below without prejudice; 68.01-84.99 points are prone to prejudice and 85 points and above are prejudiced. These categories were determined to increase the discriminative power of the scale and to evaluate prejudice levels more clearly.[14]

Empathic Tendency Scale (ETS): The Empathic Tendency Scale, developed by Üstün Dökmen,[15] is a 20-item scale designed to assess the potential of individuals to empathize in their daily lives. The scale uses a 5-point Likert-type rating. It was stated that approximately half of the items of the scale were written negatively in order to balance the participants' tendency to say "yes". Cronbach alpha coefficient of the scale was found as 0.82.[15] In this study, Cronbach alpha was found to be 0.744.

Statistical Analysis

SPSS 24.0 package program was used for statistical analysis of the research data. Descriptive statistics for continuous variables (mean, standard deviation (SD), minimum, maximum) and frequency distributions for categorical variables were determined. Data were evaluated using chi-square, dependent groups t test and correlation analysis.

RESULTS

A total of 458 health personnel working in Gaziantep province participated in the study. The general characteristics of the participants are shown in **Table 1**. The ages of the participants were 30.75±7.74 (18-59); 57% were female and 43% were male. 53.5% were married and 46.5% were single. 54.1% of the participants had no children. The proportion of participants with one, two, three and more children is 14.2%, 17.5% and

14.2%, respectively. The average working year of the healthcare professionals was 6.49±7.52 years. Of the participants, 3.9% were primary and secondary school graduates, 16.6% were high school graduates, 67.2% were university graduates, and 12.2% were postgraduate/doctoral graduates. 10.9% of the participants were doctors, 52.4% were nurses-midwives, 13.3% were health technicians, 2.4% were technical services, 2.2% were security-cleaning personnel, 2.4% were medical secretaries, and 1.7% were in other jobs. 20.7% worked in emergency rooms; 79.3% worked in other units. 37.8% worked 40 hours or less; 56.8% worked 41-60 hours; 5.5% worked 61 hours or more.

Table 1. General characteristics of healthcare professionals

	n	%	Obesity prejudice scores X±SD	p	Empathic tendency total score X±SD	p
Gender*						
Female	261	57.0	78.19±10.80	0.197	69.18±7.37	0.528
Male	197	43.0	79.84±12.26		69.74±.8.11	
Marital status*						
Married	245	53.5	77.61±11.37	0.003	70.37±7.48	0.003
Single	213	46.5	80.38±11.41		68.33±7.80	
Number of children						
No	248	54.1	79.92±11.39	0.825	68.38±7.74	0.125
One	65	14.2	78.20±13.38		67.35±7.42	
Two	80	17.5	76.18±10.54		72.21±6.64	
Three and above	65	14.2	79.09±10.38		72.05±7.49	
Education status						
Primary school-secondary school graduate	18	3.9	81.33±11.51	0.004	71.67±8.51	0.175
High school	76	16.6	82.34±12.11		70.61±8.58	
University	308	67.2	78.55±11.39		69.22±7.41	
Graduate/PhD	56	12.2	75.38±9.75		68.20±7.57	
Profession						
Doctor	46	10.9	75.17±10.25	0.004	68.48±1.22	0.228
Nurse-midwife	240	52.4	78.48±.71		69.15±.46	
Health technician	60	13.3	79.52±1.40		68.17±.97	
Patient services	11	2.4	81.73±4.49		70.73±2.68	
Technical services	10	2.2	78.90±2.76		69.80±2.43	
Security cleaning	72	15.7	82.92±1.41		71.38±.98	
Medical secretary	11	2.4	73.09±2.76		69.27±2.26	
Other	8	1.7	76.25±6.69		72.75±3.35	
Unit of assignment						
Emergency	95	20.7	80.89±9.71	0.018	68.01±7.43	0.050
Other	363	79.3	78.38±11.84		69.79±7.73	
Working hours per week						
<40	173	37.8	79.67±12.12	0.632	69.39±8.14	0.013
41-60	260	56.8	78.39±10.99		69.85±7.33	
>61	25	5.5	78.88±11.85		65.20±7.2	
Satisfaction with the working environment						
Yes	253	55.2	80.58±11.83	0.000	70.40±7.79	0.001
Partially	172	37.6	76.09±10.47		68.59±7.37	
No	33	7.2	80.73±11.0		66.24±8.00	
BMI						
Underweight	16	3.5	84.00±11.04	0.005	68.56±8.95	0.330
Normal	246	53.7	70.08±10.76		68.90±7.58	
Overweight	149	32.5	76.96±11.91		70.04±8.16	
Obese	47	10.3	82.38±12.62		70.49±6.10	
Tenure as health personnel			6.49±7.52			
BMI			24.80±4.16			

*Mann-Whitney U test, SD: Standard deviation, BMI: Body-mass index

According to body-mass index (BMI) classification, 3.5% were underweight, 53.7% were normal, 32.5% were overweight, and 10.3% were obese.

Gender and weekly working hours did not change obesity prejudice scores. Those who were single had higher obesity prejudice scores than those who were married.

The obesity prejudice scores of those working in the emergency department were found to be high and the total scores of empathic tendency were found to be significantly lower than those working in other units ($p<0.05$).

Individuals' perceptions and experiences regarding obesity and physical appearance according to their obesity prejudice scores and empathic tendencies are presented in Table 2. 90.2% of the healthcare professionals state that they are not prejudiced against obese individuals. The obesity prejudice score of those who stated that they were not prejudiced was higher than those who stated that they were prejudiced. The total score of empathic tendency of those who stated that they were not prejudiced was higher than those who stated that they were prejudiced ($p<0.05$). 10.9% defined themselves as underweight, 74.2% as normal weight, 14.8% as obese. 50.9% did not have a period in their lives when they found themselves as obese. Obesity prejudice scores and empathic tendency scores were not found to be different in the case of finding oneself overweight in a period of life ($p>0.05$).

76.6% of the healthcare professionals were satisfied with their physical appearance. Obesity prejudice scores and empathic tendency scores of those who were satisfied with their physical appearance were significantly higher than those who were not satisfied ($p<0.05$).

Table 3 shows the presence of obese individuals around the participants. 95.5% of the participants had obese individuals in their environment. Of those who had obese people around them, 23.3% had obesity in their friends, 15.4% had obesity in their neighbors, 15.0% had obesity in their aunts/aunties, and 12.2% had obesity in their mothers.

The mean score of obesity prejudice scale was 78.90±11.46 and the mean score of empathic tendency was 69.42±7.69.

According to the obesity prejudice scale, 17.5% were found to be unprejudiced, 52.9% were found to be prejudiced, and 28.6% were found to be prejudiced (Table 4).

Table 3. The participants' percentage of overweight individuals in their surroundings

Having an obese person close to them*	n	%
No	49	5.0
Yes	409	95.5
Obese individual in their surrounding		
Mother	121	12.2
Father	55	5.6
Brother/sister	76	7.7
Grandmother/grandfather	53	5.4
Auntie	148	15.0
Uncle	81	8.2
Friend	230	23.3
Neighbor	152	15.4
Other relatives	23	2.3

*Multiple response analysis was applied to questions permitting multiple selections. The table presents the frequency and percentage of each selected response

Table 4. Obesity prejudice status and empathic tendency scores of healthcare professionals

Obesity prejudice scale classification	n	%
Without prejudice	80	17.5
Prone to prejudice	247	53.9
Biased	131	28.6
	Scale score (mean±SD)	
Obesity prejudice scale score	78.90±11.46	
Empathic tendency total score	69.42±7.69	

The factors associated with obesity prejudice and empathic tendency scores are presented in Table 5. There is a weak positive correlation between obesity prejudice score and empathic tendency score and a weak negative correlation

Table 2. Perceptions and experiences of individuals regarding obesity and physical appearance

	n	%	Obesity prejudice scores X±SD	p	Empathic tendency total score X±SD	p
How would you describe your attitude towards obese people						
I am biased	45	9.8	71.87±9.848	0.000	66.58±7.127	0.008
I am unprejudiced	413	90.2	79.67±11.381		69.73±7.700	
Satisfaction with physical appearance						
I am satisfied	351	76.6	79.61±11.833	0.013	70.09±7.780	0.001
Not satisfied	107	23.4	76.57±9.874		67.21±7.005	
How to define yourself						
Weak	50	10.9	80.08±11.462	0.840	68.16±7.713	0.329
Normal/average weight	340	74.2	78.74±11.227		69.76±7.822	
Fat	68	14.8	78.82±12.727		68.68±6.974	
Was there a time in your life when you found yourself fat?						
Yes	233	50.9	78.11±12.142	0.064	68.91±7.384	0.268
No	225	49.1	79.72±10.691		69.95±7.989	

SD: Standard deviation

between age and number of children (p<0.05). There is a weak positive correlation between empathic tendency score and obesity prejudice score, and a weak positive correlation between age and number of children and empathic tendency score (p<0.05).

Table 5. Pearson correlation coefficients between scale scores and demographic variables

		Obesity prejudice score	Empathic tendency score
Age	r	-.122	.165
	p	.009	.000
Number of children	r	-.097	.207
	p	.038	.000
Years of employment	r	-.079	.088
	p	.090	.061
BMI	r	.	.085
	p	.904	.071
Obesity prejudice score	r	1.000	.141
	p	.006	.002
Empathic tendency score	r	.141**	1.000
	p	.002	

r: Pearson correlation coefficient, BMI: Body-mass index

DISCUSSION

In studies conducted with healthcare professionals, it is revealed that the majority of healthcare professionals have prejudice attitudes towards obese individuals. When obese patients want to receive services from healthcare professionals in this field, it causes delays in the correct, effective and timely treatment of their existing diseases due to their reluctance to receive healthcare services due to prejudiced approach. This leads to the progression of the diseases of the obese patient group and the increase in health expenses spent on this group.[16-19] The limited research on prejudice against obesity in many professions, including health care, has shown that this prejudice exists to a significant extent. Among healthcare professionals, the idea that patients with obesity are non-compliant with treatment, weak-willed, unsuccessful, lazy, unintelligent and dishonest is quite high.[20-22]

In the studies examined using the Obesity Prejudice Scale (OPS); Sert et al.[23] found the total OPS score average of 78.55 in health college students, Öztürk Altınkaynak and his team[24] found the total OPS scale score average of 74.51 in their study on midwifery students, Okumuşoğlu's[25] OPS score average was 82.42 in the study conducted with 4th year students studying in different departments of the university, and Ünal's[26] OPS average was 80.61 in the study. In our study, the OPS score was determined as 78.90. In all these studies, it was determined that there was a tendency to prejudice according to the OPS score; the reason for these similarities is thought to be because the participants were students or health professionals related to health. In the study conducted by Ünal,[26] 29 (11.7%) were found to be unprejudiced, 138 (55.6%) were prone to prejudice, and 81 (32.7%) were found to be prejudiced when classifying the OPS score among healthcare professionals. In this study, similarly, 80 (17.5%) were found to be unprejudiced, 247 (53.9%) were prone to prejudice, and 131 (28.6%) were found to be prejudiced. The reason for the similar results in both studies may be due to the fact that they included all healthcare professionals. In the study conducted by Ünal,[26] it was determined that the average OPS score of healthcare professionals was 80.61, but the numerical difference between healthcare professionals was not statistically significant. In our study, it was observed that the OPS scores among healthcare professionals were 78.90; however, when grouping was made, the OPS scores of physicians were found to be lower, and this difference was statistically significant. The reason for the low OPS score average of physicians is thought to be that they have more face-to-face contact with obese individuals compared to other professional groups, starting from their internship experiences throughout their education process and in their work lives, and physicians are the first to deal with the problems they experience.

In the study conducted by Koyu et al.[27] at the faculty of health sciences, the OPS average score was determined as 85.28 and the average age as 20.07, and the OPS score was evaluated as biased according to the categorization, while in our study, the OPS score was determined as 78.90 and the average age as 30.75 (18-59), and it was determined as prone to bias in its evaluation. In our study, a statistically significant and weak negative relationship was found between the obesity prejudice scale and age (p: 0.009, r: 0.122). It was observed that the obesity prejudice scale scores decreased as age progressed. This situation reveals results consistent with other studies. Therefore, it is thought that the prejudice scale scores may have been found lower compared to other studies. In our study, it can be suggested that the similar results to the OPS average scores obtained especially in studies conducted with students may be due to the fact that the average age of our participants (30.75) was not very high.

In the study conducted by Okumuşoğlu,[25] it was determined that there was no difference in terms of prejudice between genders. In Ünal's study[26] the OPS scores were similar according to genders and the difference was not found to be statistically significant. In our study, similar to these, the OPS scores were similar according to genders and no statistically significant difference was found (p>0.05). In the study of Yavuz et al.,[28] when marital status was examined, it was found that the OPS scores were higher in married individuals, but this difference was not found to be statistically significant. In contrast, in our study, the OPS scores were found to be higher in singles and this difference was found to be statistically significant. It is thought that the observation of higher prejudice scores in single healthcare professionals is related to the fact that single individuals are generally thinner and that prejudice rates are higher in young people. In general, it can be concluded that obesity prejudice is higher in young and single individuals.

In a multinational study conducted by Puhl and King[20] examining weight prejudice, those with lower BMI were found to have higher prejudices towards obesity. In a study conducted by Welborn[2] with a similar group, examining obesity phobia and anti-fat attitude, it was similarly observed

that obesity prejudice decreased as BMI increased. In our study, those with the highest OPS scores were found in the underweight group according to BMI, similar to other studies, and were found to be statistically significant. However, in our study, as BMI increased, the ETS score increased, but it was not found to be statistically significant. The reason why obesity prejudice is high among healthcare professionals with low BMI, both in our study and in other studies, may be due to insufficient empathy.[16,22]

In the study conducted by Koç[29] in which he examined the empathic tendency level according to demographic data, he examined the empathic tendency level according to different professional groups, and no statistically significant difference was found between age and empathic tendency level. On the contrary, in our study, a statistically significant difference was found between empathic tendency level and age. Here, in the study conducted by Koç, the participants were taken from 5 types of professional groups, namely teacher, doctor, lawyer, religious official and freelance, so it can be thought that all of them could be health professions. Even though there are different professional groups in our study, they are all health-related branches.

In the study conducted by Özcan[30] with nurses working in a state hospital, ETS mean score was determined as 65.95. In the study conducted by Akgöz et al.[31] with physicians, this mean was determined as 69.26, and in the study conducted by Ünal,[26] it was determined as 72.44. In the study conducted by Dizer and İyigün[32] with intensive care nurses, the ETS mean score was found as 70.50, in the study conducted by Yiğitbaş et al.[33] with a group of students receiving health education, it was found as 66.07, and in the study conducted by Tutuk et al.[7] with 1st and 4th year students of the nursing department, it was found as 66.55. In our study, the ETS mean score of healthcare professionals was determined as 69.42, and it was seen that this value showed an empathy level close to the average of the studies conducted with other healthcare professionals and students.

In Ünal's study,[26] when the attitudes of healthcare professionals were evaluated according to their own prejudice statements, it was seen that the majority of the groups that stated that they were unprejudiced, prejudiced and had no opinion were prone to prejudice. It was determined that the highest OPS score average was in the group that described themselves as unprejudiced. Similarly, in our study, the OPS scores of those who described themselves as unprejudiced were found to be higher and this difference was found to be statistically significant. Both studies show that although the individual expressed himself without prejudice, the level of prejudice was high in the scale assessment. While there was no significant difference between the ETS scores of individuals according to their own prejudice statements in Ünal's study[26] in our study, it was determined that the ETS scores of those who described themselves as unprejudiced were higher and this difference was found to be statistically significant.

According to the study by Öztürk Altınkaynak et al.[24] the highest OPS score average was found in those who defined themselves as thin in terms of body perception and the lowest in those who defined themselves as fat; in the study conducted by Ünal,[26] the OPS scores were highest in the group that defined themselves as thin according to similar body perception groups, and the difference between the groups was statistically significant. In our study, when individuals evaluated themselves in terms of weight status, the OPS score was found to be the highest in the group that defined themselves as thin, but it was not found to be statistically significant. This is again an expected picture, as a result similar to the objectively evaluated BMI and OPS classification was found. When we look at the relationship between the individual's body perception and ETS; in the study conducted by Ünal, the difference between the ETS scores according to body perception groups was not found to be significant and, in our study, no statistical significance was found in terms of ETS scores.

CONCLUSION

The majority of the participants who participated in the study were found to be prone to prejudice according to the OPS score as in previous studies. The majority of them were young and single participants who saw themselves as weak. Again, it was determined that the majority of the participants had an obese person close to them. The reason for this attitude towards overweight patients is the difficulties experienced in the diagnosis, treatment and follow-up process, and these processes may increase prejudice and decrease the level of empathy in healthcare professionals. In order to reduce prejudice against obese patients and increase empathy levels, the curriculum content can be enriched in this respect during the training process related to the department of the relevant personnel. Thanks to this, their approaches may be more positive, having received the necessary training before starting the profession.

ETHICAL DECLARATIONS

Ethics Committee Approval

The study was carried out with the permission the Gaziantep University Non-interventional Clinical Researches Ethics Committee (Date: 26.01.2023, Decision No: 182.22.07).

Informed Consent

Written informed consent forms were obtained from participants in the study.

Referee Evaluation Process

Externally peer-reviewed.

Conflict of Interest Declaration

The authors report there are no competing interests to declare.

Financial Disclosure

The authors declared that this study has received no financial support.

Author Contributions

All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version.

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