

Attitudes, Prejudices and Barriers of Healthcare Professionals towards Female Patients with Obesity

Sağlık Bakım Profesyonellerinin Obezite Sorunu Olan Kadın Hastalara Yönelik Tutum, Ön Yargı ve Obez Hasta Bakımına Yönelik Engelleri

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ABSTRACT

Objective: This descriptive and correlational study was conducted to evaluate the attitudes, prejudices, and patient care obstacles of healthcare professionals (HPs) who work in the healthcare and allied healthcare services and serve female patients with obesity in Türkiye.

Materials and Methods: The sample of the study included 411 HPs who provided care to female patients in public and university hospitals in Türkiye and who volunteered to participate in this study. Data were collected online using an Information Form, GAMS-27 Obesity Prejudice Scale (GAMS-27), the Attitudes Toward Obese People Scale (ATOP), and the Questionnaire on Patient Care Obstacles for Patients with Obesity (OHBEF).

Results: The mean scores of HPs on the abovementioned scales were OHBEF= 65.09±8.80, GAMS-27= 77.91±4.52, and ATOP= 59.24±0.23. The mean score of HPs on the OHBEF was related to age, mean Body Mass Index (BMI) of men, and occupational group ($p<0.05$). Additionally, the mean scores of HPs on the ATOP were not related to their sociodemographic characteristics ($p>0.05$).

Conclusions: This study revealed that HPs had prejudiced and negative attitudes toward female patients with obesity, and this was related to a lack of materials and equipment for patient care, sex, age, BMI, and occupational group.

Keywords: Attitudes, barriers, female, healthcare professionals, obesity

ÖZ

Amaç: Bu tanımlayıcı ve ilişki arayıcı çalışma, Türkiye'de obezite sorunu olan kadın hastalara bakım veren sağlık bakım profesyonellerinin (SBP) tutumlarını, önyargılarını ve hasta bakım engellerini değerlendirmek için yapılmıştır.

Materyal ve Metot: Çalışmanın örneklemini, Türkiye'deki kamu ve üniversite hastanelerinde kadın obez hastalara bakım sağlayan ve bu çalışmaya katılmayı gönüllü olan 411 SBP oluşturmuştur. Veriler, Bilgi Formu, GAMS-27 Obezite Önyargı Ölçeği (GAMS-27), Obez Bireylere Yönelik Tutum Ölçeği (ATOP) ve Obez Hasta Bakım Engelleri Soru Formu (OHBEF) kullanılarak online çevrimiçi toplanmıştır.

Bulgular: SBP'lerin ölçeklerdeki ortalama puanları, OHBEF=65,09±8,80, GAMS-27=77,91±4,52 ve ATOP= 59,24±0,23 idi. SBP'lerin OHBEF puan ortalaması yaş, erkeklerin ortalama Beden Kitle İndeksi (BKI) ve meslek grubu ile ilişkili olduğu belirlendi ($p<0,05$). Ayrıca, SBP'lerin ATOP puan ortalamaları, sosyodemografik özellikleri arasında ilişkili saptanmadı ($p>0,05$).

Sonuç: Bu çalışma, SBP'lerin obezite hastası olan kadınlara karşı önyargılı ve olumsuz tutumlar sergilediğini ve bunun hasta bakımı için malzeme ve ekipman eksikliği, cinsiyet, yaş, BKI ve meslek grubu ile ilişkili olduğunu ortaya koymuştur.

Anahtar Kelimeler: Kadın, obezite, sağlık bakım profesyoneli, tutum

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INTRODUCTION

Obesity is a growing global health concern due to its associated diseases and mortality. The Centers for Disease Control and Prevention reports a worldwide obesity prevalence of 39.8%.¹ Individuals with obesity are often stigmatized as unattractive, lazy, weak, selfish, and unsuccessful. They are exposed to negative societal behaviors and may be more vulnerable to epidemics and chronic diseases.²⁻⁴ Negative attitudes of healthcare personnel cause individuals with obesity to stay away from treatment, lose trust in practitioners and performance and cancel or delay their appointments. Individuals with obesity are at risk of many diseases; thus, healthcare professionals' (HPs') behaviors that might push them away from healthcare services are worrisome for the future.^{5,7}

Research indicates that individuals with a Body Mass Index (BMI) of 35 or higher are more likely to experience institutional and employment discrimination, including in healthcare settings. This suggests that as obesity severity increases, so does the likelihood of facing negative treatment from healthcare providers.^{2,6} Women with obesity report experiencing more stigma and inappropriate comments from healthcare professionals compared to their male counterparts. Approximately 53% of women with obesity have noted inappropriate remarks about their weight during medical visits.³ This gender disparity highlights that women may be particularly vulnerable to weight bias in healthcare. Eliminating the prejudice posed against individuals with obesity in healthcare institutions and changing the negative attitudes and behaviors toward them would maintain the continuity of care as well as increase its quality. The initial step toward eradicating negative attitudes and behaviors directed at women with obesity in healthcare institutions is to acknowledge the biases held by HPs against such individuals. This acknowledgement must be paired with improved education, providing causal information, emphasizing controllability, fostering empathy, and adopting a weight-inclusive approach.⁸ Healthcare professionals often develop negative perceptions about treating obese patients when they lack the necessary equipment to provide adequate care. This can lead to feelings of frustration and inadequacy among providers, which may manifest as bias or discrimination against obese individuals.⁹ This study was conducted to determine the attitudes and prejudices of HPs toward female patients with obesity and to evaluate the obstacles to the care provided to patients with obesity.

MATERIALS AND METHODS

Ethics Committee Approval: The approval of Istanbul University – Cerrahpasa, Social Humane Ethics

Committee (Date: 07.01.2020, decision no: 2019/173) was obtained. The study adhered to the ethical guidelines of the Declaration of Helsinki. Informed consent was obtained from participants via email. The permissions of the authors of the scales used in the study were obtained via e-mail.

Design: This descriptive and correlational study was conducted to evaluate the attitudes and prejudices of HPs who work in healthcare and allied healthcare services in Türkiye toward female patients with obesity and the obstacles regarding the care provided to patients with obesity. The population of the study included HPs who worked at medical faculties affiliated with the Ministry of Health and university hospitals in Türkiye. According to the Turkish Statistical Institute (TSI) data, 525,197 HPs were employed in 2017.¹⁰ The method of sampling with a known population was used to determine the sample size in line with these data. The sample of the study was measured based on the GAMS-27 Obesity Prejudice Scale. According to the study by Ünal in 2018, the prevalence of prejudice among HPs is 32.66%.¹¹ The number of HPs needed in the sample according to the method of sampling with a known population was calculated as 338 (95% confidence interval, 1% margin of error). The sample loss was predicted as 20%; thus, the snowball method was used to reach the lowest number of HPs (405) deemed acceptable. The sample size of this study was 411.

The inclusion criteria were being assigned to provide care to female patients whose BMI was higher than 30, not being on leave, and agreeing to participate in the study. The study was carried out between March 1, 2020, and March 1, 2021, when it was not possible to collect data face-to-face in Türkiye due to the COVID-19 pandemic; thus, the study data were collected from voluntary participants via Google.survey. The collection of the data was initiated by sending the scales to randomly selected physicians, nurses, midwives, and others (Surgery technicians, anesthesiologists, dietitians, physical therapy technicians, first and emergency aid technicians, laboratory technicians, audiologists, psychologists, x-ray technicians). Healthcare professionals defined as "other" were classified according to the TSI.¹⁰ Only participants who cared for overweight women from other healthcare professions were included in the study sample. Similarly, only anesthesia technicians who cared for overweight women with obesity problems were included in the study. The data collection process was completed as the primary participants shared the Google.survey questionnaire was sent to them with their HP colleagues. The completion of each scale took between 10 and 15 minutes on average.

Study questions:

1. Are medical materials, diagnosis and screening materials, and the physical environments commonly used by HPs suitable for the care provided to patients with obesity?
2. What is the mean score of HPs on the Questionnaire on Patient Care Obstacles for Patients with Obesity?
3. What is the mean score of HPs on the GAMS-27 Obesity Prejudice Scale?
4. What is the mean score of HPs on the Attitudes Toward Obese People Scale?
5. Is there any relationship between the HPs' sociodemographic characteristics and mean scores on the scales?

Data collection tools

The Introductory Information Form: It was formed to determine the sociodemographic and anthropometric characteristics of the participants. It had six questions about the HPs' sociodemographic information, such as occupation, age, etc.

The Questionnaire on Patient Care Obstacles for Patients with Obesity (OHBEF): The questionnaire was prepared by the researchers to evaluate the obstacles to care provided to female patients with obesity in line with the literature. Items in the questionnaire included the difficulties faced by HPs in patient care and HPs' beliefs about women with obesity.^{5-8, 11, 13, 14} It was prepared as a five-point Likert-type scale (1=Definitely agree; 5=Definitely disagree). Direct (positive) statements are scored reversely. The suitability of the questions was checked by HPs working in the clinical field. Increasing scores obtained from the questionnaire indicated increased obstacles to care provided to patients with obesity. The created form consists of 22 items

(Table 1). The lowest score that can be obtained from the questionnaire is 22, while the highest score is 110. The Cronbach's alpha coefficient of the questionnaire was 0.83. Item analysis was used to determine the relationship between the items and the entire questionnaire. The correlation coefficients of the item-total score were between 0.30 and 0.58. To test the reliability of the developed form, the Cronbach's alpha value and the item-total correlation were examined. The Cronbach's alpha coefficient, which indicates the internal consistency of the measurements, is generally considered to be low in the range of 0.42–0.60, moderate in the range of 0.61–0.80 and highly reliable in the range of 0.81–1.00. Consequently, Cronbach's α value of 0.83 indicates that the scale used is reliable. In addition, the correlation coefficient of the item's total score, which is at least above 0.30, shows that the measurement instrument is reliable.¹⁵

GAMS-27 Obesity Prejudice Scale (GAMS-27): It was developed by Ercan et al. and its Cronbach's alpha coefficient is 0.85. The statements in the scale consist of negative statements about prejudices against obesity. There is no reverse scoring in the scale. An increase in the score on the scale indicates prejudice against obesity. It has 27 items in a five-point Likert-type style. The lowest score that can be obtained from the scale is 27, while the highest score is 135.¹² The Cronbach's alpha coefficient was 0.87.

The Attitudes Toward Obese People Scale (ATOP): The scale developed by Allison et al., which conducted the Turkish validity and reliability study by Dedeli et al., has a Cronbach's alpha of 0.86. The scale includes positive and negative statements in a six-point Likert format. Each item must be answered so that the calculation can be made correctly. In the

Table 1. The questionnaire on patient care obstacles for patients with obesity.

<ol style="list-style-type: none"> 1. Caring for an obese patient is exhausting 2. Caring for an obese patient requires more time 3. I avoid touching an obese patient 4. I am reluctant to perform invasive procedures on an obese patient 5. I offer psychological support to an obese patient 6. I empathize when caring for an obese patient 7. I feel uncomfortable caring for an obese patient 8. I have difficulty getting an obese patient into the right position 9. I have difficulty transporting obese patients 10. Obese patients generally have difficulty complying with treatment 11. I avoid communicating with an obese person 12. Obese people have difficulty caring for themselves 13. Obese patients increase the cost of care 14. I need more healthcare professionals and other support staff to care for an obese patient 15. The physical environment in healthcare facilities is generally suitable for the care of an obese patient 16. The medical equipment used in the care of an obese patient is generally not appropriate 17. The diagnostic and screening tools used in the care of obese patients are generally appropriate 18. It is easy to teach obese patients health-promoting behaviors 19. Obese patients are insensitive to their health problems 20. Obese patients are unwilling to accept treatment and have poor compliance 21. Obese patients develop more complications 22. Obese patients are often late for their appointments
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second step, 60 points are added to the mean item-total score, resulting in a scale range of 0 to 120. Higher total mean scores indicate more positive attitudes toward individuals with obesity.^{13,14} The Cronbach's alpha coefficient was 0.70.

Statistical analysis: The data obtained were analyzed using the IBM Statistical Package for the Social Sciences Statistics 21 program. Cronbach's alpha was recalculated to assess the scale's reliability. Descriptive analyses were used to evaluate participants' sociodemographic characteristics, and the Kolmogorov-Smirnov test was applied to assess data distribution. The Independent Samples t-test and Kruskal Wallis test were used to evaluate the variables that didn't have a normal distribution. Inter-group comparisons were conducted using the Bonferroni and Tukey post-hoc tests while correlation analysis was conducted to examine the correlations between the scales. The statistical significance level was $p < 0.05$.

RESULTS

Of the participants, 10.7% (n=44) were physicians, 66.2% (n=172) were nurses, 13.9% (n=57) were midwives, and 9.2% (n=38) were other HPs. The study found that the sphygmomanometer (70.1%;

n=288), needle tip of injectors (30.9%; n=127), magnetic resonance device (20.7%; n=85), stretcher (67.6%; n=278), and wheelchair (72.7%; n=299), which are commonly used by HPs, were not suitable (Table 2).

The mean scores of HPs on the scales used in this study were OHBEF=65.09±8.80, GAMS-27=77.91±4.52, ATOP=59.24±0.23. Considering the correlation between the HPs' mean score on OHBEF and sociodemographic variables, there was a weak positive correlation between age and men's mean BMI ($p < 0.05$). A significant correlation was found between the mean OHBEF score and occupational groups ($p < 0.001$). As a result of the Bonferroni post-hoc test conducted to determine which groups caused the difference, the difference was between physicians and nurses, and midwives and other HPs. A significant difference was found between the occupational groups in terms of GAMS-27 scores ($\chi^2=8.693, p=0.03$). In a further analysis, the difference was found to be between midwives and all other healthcare professionals ($p < 0.05$) (Table 3).

A very weak positive correlation was found for GAMS-27 with OHBEF ($r= 0.208, p < 0.001$) and ATOP ($r= 0.117, p= 0.018$) (Table 4).

Table 2. Data on the suitability of the medical materials, diagnosis devices, and physical environment for women with obesity (n= 411).

Materials*		n (%)	Materials*		n (%)
Sphygmomanometer	Suitable	105 (25.5)	Magnetic resonance device	Suitable	169 (41.1)
	Unsuitable	288 (70.1)		Unsuitable	85 (20.7)
	Unused	18 (4.4)		Unused	157 (38.2)
Weighing instrument	Suitable	144 (35.0)	Ultrasonography device and probe	Suitable	129 (31.4)
	Unsuitable	204 (49.6)		Unsuitable	62 (15.1)
	Unused	63 (15.3)		Unused	220 (53.5)
Injector needle tip	Suitable	258 (62.8)	Mammography device	Suitable	68 (16.5)
	Unsuitable	127 (30.9)		Unsuitable	163 (39.7)
	Unused	26 (6.3)		Unused	180 (43.8)
Stretcher	Suitable	116 (28.2)	Gynecological examination table	Suitable	120 (29.2)
	Unsuitable	278 (67.6)		Unsuitable	104 (25.3)
	Unused	17 (4.1)		Unused	187 (45.5)
Patient's bed and materials	Suitable	164 (39.9)	Gynecological speculum	Suitable	296 (72.0)
	Unsuitable	223 (54.3)		Unsuitable	68 (16.5)
	Unused	24 (5.8)		Unused	47 (11.4)
Patient's support materials	Suitable	240 (58.4)	Patient's handling lift	Suitable	267 (65.0)
	Unsuitable	134 (32.6)		Unsuitable	113 (27.5)
	Unused	37 (9.0)		Unused	31 (7.5)
Wheelchair	Suitable	79 (19.2)	Door width of the patient's room	Suitable	167 (40.6)
	Unsuitable	299 (72.7)		Unsuitable	192 (46.7)
	Unused	33 (8.0)		Unused	52 (12.7)
Surgical gown	Suitable	89 (21.7)	Patient's restroom	Suitable	261 (63.5)
	Unsuitable	266 (64.7)		Unsuitable	121 (29.4)
	Unused	56 (13.6)		Unused	29 (7.1)
Patient's diaper and pad	Suitable	150 (36.5)	Room width (m ²)	Suitable	213 (51.8)
	Unsuitable	196 (47.7)		Unsuitable	94 (22.9)
	Unused	65 (15.8)		Unused	104 (25.3)
Anti-embolism socks	Suitable	95 (23.1)			
	Unsuitable	207 (50.4)			
	Unused	109 (26.5)			

*: Commonly used materials; *: Oxygen mask, walker, etc.; Standard deviation

Table 3. Correlation between the participants' demographic characteristics and mean scale scores (n=411).

Scales	Mean±SD	Min-max
OHBEF	65.09±8.80	36- 92
GAMS-27	77.91±4.52	67- 89
ATOP	59.24±0.23	58.65- 59.85
Variable	Mean±SD	OHBEF Statistic (p)
Age, years	30.75±8.47 4	r= 0.152 (0.002)
BMI, female	23.20±3.64	r= -0.63 (0.243)
BMI, male	24.85±3.25	r= 0.413 (0.001)
Profession	n (%)	MR
Physician	44 (10.7)	275.51
Nurse	272 (66.2)	200.73
Midwife	57 (13.9)	169.14
Other	38 (9.2)	213.26
Female	344 (83.7)	201.48
Male	67 (16.3)	229.22
Have you ever been overweight in your life?		
Yes	153 (37.2)	201.86
No	258 (62.8)	208.45

OHBEF	GAMS-27	ATOP
Mean±SD	Mean±SD	Mean±SD
24.85±3.25	77.91±4.52	59.24±0.2
Statistic (p)	Statistic (p)	Statistic (p)
r= 0.152 (0.002)	r= -0.013 (0.790)	r= -0.051 (0.300)
r= -0.63 (0.243)	r= -0.081 (0.153)	r= 0.037 (0.490)
r= 0.413 (0.001)	r= 0.276 (0.033)	r= 0.076 (0.719)
MR	MR	MR
275.51	199.08	201.47
200.73	191.26	202.82
169.14	207.28	234.82
213.26	149.57	201.93
201.48	196.00	207.34
229.22	146.03	199.13
Statistic (p)	Statistic (p)	Statistic (p)
$\chi^2 = 18.31$ (<0.001)	$\chi^2 = 8.693$ (0.03)	$\chi^2 = 2.921$ (0.404)
z= -1.751 (0.08)	z= -3.281 (0.001)	z= -0.519 (0.604)
z= -0.544 (0.586)	$\chi^2 = -0.422$ (0.673)	z= -1.601 (0.109)

SD: Standard deviation; r: Spearman correlation; t: Independent Samples t-test; χ^2 : Kruskal Wallis Test; MR: Mean Rank; OHBEF: The Questionnaire on Patient Care Obstacles for Patients with Obesity; ATOP: The Attitudes Toward Obese People Scale; GAMS-27: GAMS 27- Obesity Prejudice Scale

Table 4. Correlation between GAMS-27, OHBEF, and ATOP (n= 411).

	OHBEF r (p)	ATOP r (p)
GAMS-27	0.208 (<0.001)	0.117 (0.018)

r: Spearman correlation

DISCUSSION AND CONCLUSION

The main reasons why individuals with obesity receive insufficient care services are negative stereotypes, unkind behaviors of health professionals, and the unsuitability of medical equipment and supplies.^{11,16-21} The study revealed that commonly used items like sphygmomanometers, needle tips, MRI machines, stretchers, and wheelchairs, along with healthcare facility conditions, were not suitable for obese patients. A relevant study showed that gynecological examination devices or mammography devices suitable for the anatomical features of overweight women were insufficient, and this situation prevents women from having such screening tests.^{7,18} A study that examined women's experiences as overweight patients reported that the sphygmomanometer, examination table, and examination gown that is used in healthcare centers and examination rooms and chairs and sofas in waiting rooms are unsuitable according to the participants.¹⁸ A study reported that 69% of nurses lacked access to necessary equipment for obese patients, such as appropriately sized sphygmomanometers, injectors, stretchers, and wheelchairs, thus limiting effective care.¹⁷ The results of the study are consistent with the existing literature.

Studies have shown that HPS are unwilling to care for patients with obesity.^{6,17,19-21} The study found that HPs generally have negative perceptions of female patients with obesity, as indicated by their high mean scores on the OHBEF. These findings align with existing literature. Ak et al.'s study found that participants reported increased obstacles in providing care to patients with obesity as their age and years of experience grew.² Prejudices of older healthcare professionals towards obese women are due to social norms, personal biases, professional experiences and communication styles.^{6,22} This study also determined that female HPs were more prejudiced against patients with obesity compared to male HPs. Similarly, studies in the literature show that women are more prejudiced against individuals with obesity than men.²⁸ Research suggests that female healthcare providers may exhibit more pronounced biases against obese women compared to their male counterparts. This could be due to a combination of societal pressures on women regarding body image and the internalization of these biases within the healthcare profession. Female providers

might project their own insecurities or societal expectations onto their patients, leading to harsher judgments.^{6,22,26} Nurses faced several barriers in caring for patients with obesity, mainly due to inadequate equipment and negative stereotypes and attitudes. Nurses' attitudes towards obese patients are often negative, influenced by personal beliefs and professional experiences. Moderately, those working in primary healthcare face unique challenges when addressing the needs of obese patients, though they tend to display lower levels of prejudice compared to other healthcare professionals.^{19,20-24} This could be due to the fact that they have more to do with the different needs of patients in the communities. However, one study found that the lack of specialized equipment and resources in midwifery practice also contributes to a lower standard of care for obese patients.²⁴ Even though midwives may show fewer explicit they can still convey negative attitudes through nonverbal cues such as gestures and facial expressions, which can impact patients' comfort and willingness to seek care.^{8,19,24}

Patients with obesity often face negative attitudes from healthcare professionals due to care barriers, as previous studies have shown.^{17,20,23,29,30} This study also found that healthcare professionals displayed moderately negative attitudes toward women with obesity. Similarly, different studies found that BMI affected prejudice and attitudes against obesity.^{4,25} In Usta and Akyolcu's study, having a person with obesity in their family/relatives and being overweight at some point in their life can impact negative attitudes and behaviors displayed toward overweight individuals or people with obesity.¹⁷ The studies in the literature were mainly conducted with students in health-related departments. These studies showed that students displayed prejudiced and negative behaviors against individuals with obesity.^{4,12,21,24-27} In a study by Ünal conducted with HPs in Türkiye, the mean score on GAMS-27 was 80.6±10.55.¹¹ This result was similar to previous studies. This study found a very weak positive correlation of GAMS-27 with OHBEF and ATOP. Yavuz and Baysal's study with midwives and nurses in primary healthcare institutions revealed lower levels of prejudice tendencies compared to this study.²⁴ This difference was attributed by researchers to the absence of specialized equipment for the healthcare professionals involved, as well as the challenges they encounter while providing care to individuals with obesity. Prejudices and negative attitudes pose an obstacle against care provided to individuals with obesity, while a lack of equipment and materials cause negative attitudes and prejudice.^{17,23}

In conclusion, similar to this study, previous research confirms that HPs' prejudice and negative attitudes towards women with obesity are influenced

by factors such as age, gender, experience, and inadequate resources or training. However, further research with larger samples is needed to explore additional stereotypes contributing to these attitudes. A limitation of this study is the lack of stratified random sampling, which may affect the homogeneity of responses across different professional groups despite a diverse range of participants. Additionally, while the study examined demographic and professional variables like gender, occupation, and BMI, it did not explore other factors, such as the physical strength of HPs, which may influence their attitudes towards obese female patients. The primary focus was on general attitudes, limiting the depth of analysis on specific variables.

Ethics Committee Approval: The approval of Istanbul University – Cerrahpasa, Social Humane Ethics Committee (Date: 07.01.2020, decision no: 2019/173) was obtained. The permissions of the authors of the scales used in the study were obtained via e-mail. During the study, the Helsinki Declaration criteria were complied with to protect the healthcare professionals' data, and written via e-mail consent was obtained from all the healthcare professionals participating in the study.

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