

Comparison of obese and non-obese patients in terms of self-esteem, body perception, body weight perception and sociodemographic components

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ABSTRACT

Objective: The aim of the study is to compare the randomly selected obese patients from the endocrinology outpatient clinic of a university hospital and the randomly selected non-obese patients from the general internal diseases outpatient clinic of the same hospital in the sense of self-esteem, body perception, body weight perception and some other sociodemographic features. **Methods:** The study included a total of 350 patients, of whom 175 were obese (147 female patients, 84%) and 175 were non-obese (115 female patients, 65.7%). The body mass indexes of the patients who were included in the study were measured. While the Rosenberg Self Esteem Scale was used to assess self-esteem, the body perception scale was used to assess the body perception of these patients. The consistency between the body mass index classifications and the self-body weight perceptions of the patients was also assessed. **Results:** The obese patients were found to have lower self-esteem and be less pleased about their bodies, and tend to perceive their body weights lower than their actual body weight when compared with the non-obese group. The non-obese patients in our study were found to be more pleased about their bodies whereas they showed higher levels of self-esteem and perceived their body weights more accurately. **Discussion:** In the light of these findings, obese patients should be evaluated in terms of psychiatry and get psychiatric help if needed. Eventually, obesity is an important issue which should be addressed multidisciplinary. (*Anatolian Journal of Psychiatry* 2019; 20(5):485-490)

Keywords: self-esteem, obesity, body perception, body weight perception

Obez ve obez olmayan hastaların özsaygı, beden algısı ve beden ağırlığı algısı yönünden karşılaştırılmaları

Öz

Amaç: Bu çalışmanın amacı bir üniversite hastanesi endokrinoloji polikliniğine başvuran obez hastalarla, aynı hastanenin genel dahiliye polikliniğine başvuran obez olmayan hastaları benlik saygısı, beden algısı, beden ağırlık algısı ve diğer bazı sosyodemografik özellikler açısından karşılaştırmaktır. **Yöntem:** Çalışmaya 175 obez (147 kadın, %84) ve 175 obez olmayan katılımcı (115 kadın, %65.7) olmak üzere 350 kişi alınmıştır. Çalışmaya alınan bireylerin beden kitle indeksleri ölçülmüştür. Katılımcılara Rosenberg Benlik Saygısı Ölçeği, Beden Algısı Ölçeği verilmiş ve kişinin beden kitle indeksi sınıflaması ile kendi beden ağırlığı algısı arasındaki tutarlılık karşılaştırılmıştır. **Sonuçlar:** Çalışmamızda obezlerin obez olmayan insanlara göre daha düşük benlik saygısına, daha fazla beden hoşnutsuzluğuna sahip oldukları ve gerçek vücut ağırlıklarıyla ilgili daha yanlış bir algıya sahip oldukları bulunmuştur. Çalışmamızda obez olmayanların kendi bedenlerinden daha hoşnut oldukları ve benlik saygısı düzeylerinin daha yüksek olduğu ve gerçek vücut ağırlıklarını daha doğru algıladıkları görülmüştür. **Tartışma:** Obez hastalar tedavi sürecinde, psikiyatrik açıdan da değerlendirilmeli ve gerekirse psikiyatrik destek almalıdırlar. Sonuç olarak

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Received: January, 10th 2019, Accepted: March, 03rd 2019, doi: 10.5455/apd.25504

obezite multidisipliner ele alınması gereken bir sorundur. (*Anadolu Psikiyatri Derg* 2019; 20(5):485-490)

Anahtar sözcükler: Benlik saygısı, obezite, beden algısı, beden ağırlık algısı

INTRODUCTION

Rosenberg considered the self-esteem as one's positive attitude towards himself/herself.¹ Self-esteem is composed of mental, physical and social components. Whereas some authors have found no relationship between obesity and self-esteem,^{2,3} a large number of authors have revealed that obese people have a lower self-esteem.⁴⁻⁶

Obese people are commonly faced with contempt, prejudice and disrespect. Holding one responsible for his/her own body weight may perhaps be the most critical factor in obesity discrimination. Although obesity may be caused by certain reasons independent of the individual himself/herself (genetic, disease, etc.), those who have a negative view towards obese people are likely to believe in such clichés as obesity is caused by insufficient impulse control or personal inabilities.^{7,8}

In its simplest sense, body perception is how our own body, which we shape in our mind, seems to us.⁹

Accurate perception of body weight (APBW) is defined as the consistency between the perceived and measured body weight.¹⁰ Misperception of body weight (MBW) (i.e. inconsistency between a person's actual weight status and weight status perception) is frequently encountered in overweight and obese adults. The overweight and obese people who consider themselves to be in healthy weight may not attempt to lose weight and may be less motivated to be healthy and to be physically active.¹¹ Studies show that, while adults who have a normal body weight overestimate their body weights, those who are overweight and obese tend to underestimate their body weights.¹¹ It is possible that the spectrum has, at one of its ends, those with anorexia nervosa who overestimate their body weight and, at the other end, the obese people who generally underestimate their body weight.

The development of an accurate body weight perception in individuals may be the first and most important step in the treatment process.

This study compares self-perception, body perception and body weight perception, of the randomly selected obese and non-obese patients who were admitted to the Internal Diseases

Outpatient Clinic of a university hospital.

METHODS

This study aims to identify the self-esteem, body perception and body weight perception in obese and non-obese patients who were admitted to the internal diseases outpatient clinic of a university hospital. The obese group of the study included 175 obese patients randomly selected among the patients who were admitted to the endocrinology and metabolism outpatient clinic of a university hospital whereas the control group consisted of 175 non-obese patients who were admitted to the general internal diseases outpatient clinic of the department of internal medicine. In calculation of sample volume within this study, the sample size of case and control groups was identified using the packaged software NCSS-PASS.

Study inclusion criteria for obese group:

- Having a BMI of 30 and over
- Being in the age range of 18-65
- Approving the voluntary consent form.

Study inclusion criteria for non-obese group:

- Having a BMI of 18.5-29.9 (normal or overweight)
- Being of age and gender similar with those of the obese group
- Approving the voluntary consent form.

Rosenberg Self-Esteem Scale: This scale, which was used for measuring self-esteem within the study, was developed by Morris Rosenberg in 1965.¹ The validity and reliability studies of the scale were performed by Çuhadaroğlu in Turkey.¹² The Rosenberg Self-Esteem Scale constitutes a self-report that consists of 63 multiple-choice questions. For the purpose of the study, the first 'ten' items of the scale, organized according to the Guttman measurement method, were used to measure self-esteem. Whereas the positive self-assessment was questioned by the items 1, 2, 4, 6, 7, the items 3, 5, 8, 9, 10 questioned negative self-assessment, and each item was scored from 0 to 3 points. The total score ranged from 0 to 30 points.

Body Perception Scale (BPS): BPS was developed by Secord and Jourand,¹³ the validity and reliability studies of which were performed by Hovardaoğlu.¹⁴ The scale consists of 40 items, each of which relates to an organ or a part of

the body or a function. The scale constitutes a Likert-type scale, each item of which scores from 1 to 5 points. The total score of the scale ranges from 40 to 200 points, where a high score indicates a high level of satisfaction from the body.

Body weight perception

The body weight perception classification was performed on the basis of the patients' self-definition as thin, normal, overweight and obese, asked to the patients in a similar manner with the BMI classification. The patients' body weight perceptions were classified as 'accurate perception of body weight' if the body weight category that the patient believes he/she belongs to is consistent with his/her BMI category and as 'low or high misperception of body weight' if the body weight category that the patients believes he/she belongs to is inconsistent with his/her BMI category.

Statistical methods used in the study

The statistical analysis of the data will be made using the packaged software SPSS for Windows 15.0. In comparison of obese and non-obese groups during the assessment, the chi-square test was used for categorical data whereas the t-test and Mann Whitney U test were used in independent samples for normally-distributed variables and in non-normally distributed data, respectively. Also, Pearson's and Spearman's correlation analyses were used to examine the correlations between quantitative variables. To find the correlations between qualitative and quantitative variables, t-test was used in independent samples for normally-distributed quantitative variables and Mann Whitney U test was used for non-normally distributed ones in cases where there are two categories and, in case of more than two categories of qualitative vari-

ables, one-way ANOVA was applied for normally distributed quantitative variables and the Kruskal Wallis analysis of variance was applied for non-normally distributed ones. The statistical significance limit was adopted as 0.05.

RESULTS

Table 1. Self-Esteem Scale scores of the sample

Group	Mean±SD	p
Normal	21.32±4.07	<0.001
Obese	17.91±5.59	

Table 2. Body Perception Scale scores of the sample

Group	Mean±SD	p
Obese	138.51±22.10	<0.001
Non-obese	152.14±21.28	

Table 3. Body Perception Scale total scores by employment status

Employment status	Mean±SD	p
Unemployed	138.29±18.26	0.004
Housewife	140.95±22.93	
Student	141.33±26.73	
Retired	144.35±22.66	
Employed	150.84±21.34	

Table 4. Distribution of patients by body weight perception

Body weight perception	Obese		Non-obese		p
	n	%	n	%	
Accurate perception of body weight	73	41.7	105	60.0	<0.001
High misperception of body weight	0	0	30	17.1	
Low misperception of body weight	102	58.3	40	22.9	
Total	175	100.0	175	100.0	

Table 5. Distribution of patients' body weight perceptions by study period

Study period	Accurate perception of body weight		Assessment on body weight perception				Total		p
	n	%	Low misperception of body weight n	%	High misperception of body weight n	%	n	%	
1 to 5 years	22	34.9	36	57.1	5	7.9	63	100	0.001
6 to 8 years	13	33.3	23	59.0	3	7.7	39	100	
9 to 11 years	33	47.1	30	42.9	7	10.0	70	100	
12 years and over	97	54.5	53	29.8	28	15.7	178	100	

DISCUSSION

Various studies have shown that obese people have a lower self-esteem.¹⁵⁻¹⁷ One's obesity may lead to a decrease in his/her self-esteem, however, an already-existing low self-esteem may also play a role as a triggering factor in obesity. The decrease in self-esteem may be a result of obesity or the underlying depression.^{18,19} The stigmatization and devaluation suffered by obese people may lead to low self-esteem.

This study showed that obese people are significantly less satisfied about their bodies when compared to the non-obese people. This result is similar to the studies in the literature.^{3,20} In their study, Ozmen et al. reported that dissatisfaction from the body is associated with low self-esteem and depression.³

In this study, it was observed that obese patients tend to perceive their body weights lower than their actual body weights whereas non-obese patients tend to perceive their body weights more accurately. Our study found that APBW was 41.7% in obese patients and 60% in non-obese patients. Of obese patients, 58.3% tend to perceive their body weights lower than their actual body while this rate is 22.9% in non-obese patients.

Similar results were reported in a study conducted by the Ministry of Health in 2012. While the prevalence of APBW was found to be highest (71.8%) in those with a normal weight, it was 38.7% in overweight patients and lowest (25.8%) in obese patients.²¹ According to a study conducted in the United States within the National Health and Nutrition Screening between 2003 and 2006, the APBW prevalence of 4784 overweight or obese adults aged 20 and over was 77%, being higher than this study.^{22,23}

The first and most important stage in the treatment of obesity may perhaps be to ensure that

the patient gets psychiatric support to study the misperception of body weight in at least certain cases.

In the assessment of body perception by gender, male patients were found to be more satisfied about their bodies. The fact that women are expected to fit into the ideal physical appearance more than men may drive women to be less satisfied about their bodies and this may, eventually, lead to higher rates of psychiatric consequences such as depression and lower self-esteem.²⁴

It was observed that the relationship between media exposure and physical displeasure play a critical role in the process of assessing physical appearance. Historically, until a long time ago, the fashion sector used to target women intemperately, which may explain why men are less susceptible to these effects.²⁵

Our study showed that, as the number of school years decreases, the obesity rate increases. Whereas 10.9% of non-obese patients were found to spend a study period of 1 to 5 years, this rate is 25.1% in obese patients. Receiving more education may mean less obesity.^{26,27} In our study the association is stronger in women, compared to men. Increased education may lead to a healthier and normal-weight lifestyle by making more informed choices.

Our study found that, as the number of school years increases, the accurate perception of body weight increases as well, whereas one's tendency to feel lighter in weight increases significantly as the number of school years decreases.

When the patients' body perception by study group was assessed, the unemployed group scored the lowest and the employed group had the highest body perception score ($p=0.004$). This may indicate a positive impact of working life on the satisfaction about the body.

The majority of obese patients (80.6%) were married. Studies show that people are more likely to gain weight after marriage.²⁸ The exact cause of this remains unknown.

In this study, the rate of presence of obesity in parents and siblings was found to be statistically significant in the obese group when compared to the non-obese group. Besides the genetic factors, this fact can also be explained by learned behaviours in self-identifying with overweight parents and coping with anxiety.

The fact that both obesity is more common and accurate perception of body weight is lower in less-educated groups may be guiding in terms of target group. Especially housewives constitute an important group under risk of obesity. Women's involvement in working life may protect them from obesity.

Receiving psychiatric support may be beneficial for obese patients to reveal the underlying psychiatric disorders which may affect body perception and body weight perception.

Authors' contributions: S.E.: finding the subject, conducting research, sample collection, applying scales, statistics; A.K.: literature review, sample collection, writing the manuscript, review the manuscript.

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