



# The relationship between self-esteem, body dissatisfaction, and eating attitudes in bariatric surgery candidates

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## ABSTRACT

**Objective:** Considering the effects of self-esteem, eating attitudes and body satisfaction on obesity and bariatric surgery outcomes, psychiatric evaluation is important for the identification and treatment of psychopathology, improvement of self-esteem, eating attitudes and body satisfaction. In this study, it was aimed to determine the relation between eating behaviors, body dissatisfaction, self-esteem and psychological symptoms in patients seeking bariatric surgery. Our second aim was to determine whether depressive symptoms and anxiety had a mediating role in the relationship between body satisfaction and self-esteem and eating attitudes.

**Material and Methods:** The study included 200 patients. Patients' data were retrospectively evaluated. Psychometric evaluation performed during the preoperative period included psychiatric examination and administration of the Beck Depression Inventory, Beck Anxiety Inventory, Rosenberg Self-Esteem Scale, Body-Cathexis Scale, and Dutch Eating Behaviors Questionnaire.

**Results:** There was a positive correlation between self-esteem and body satisfaction and a negative correlation between self-esteem and emotional eating ( $r=0.160$ ,  $p=0.024$ ;  $r=-0.261$ ,  $p<0.001$  respectively). Body satisfaction had an effect on emotional eating mediated by depression and an effect on external and restrictive eating mediated by anxiety. Furthermore, anxiety mediated the relations between self-esteem and external and restrictive eating behaviors.

**Conclusion:** Our finding indicating that depression and anxiety have mediator effects on the relation between self-esteem, body dissatisfaction, and eating attitudes is significant since screening for these entities and their treatment is relatively more practical in clinical settings.

**Keywords:** Depression, anxiety, eating attitudes, self esteem, body image

## INTRODUCTION

Obesity is a significant public health problem associated with depression, impaired body image, low self-esteem, eating disorders, and poor quality of life (1,2), and a multifaceted approach is required for its successful treatment. Bariatric surgery is known as the most effective treatment for patients with morbid obesity and is becoming increasingly prevalent worldwide (3). However, it has been reported that weight loss is lower than expected in some cases, and weight returns to preoperative levels in some cases. These studies have also shown that a thorough preoperative psychological assessment could positively affect surgical outcomes (3).

Since eating disorders and unhealthy eating attitudes are closely related to obesity, they have become a focus of interest for several researchers in bariatric surgery and psychiatry (3). According to these authors, emotional eating behavior is characterized by eating for coping with negative emotions despite not being hungry. Another unhealthy eating behavior defined in these studies is restrictive eating to maintain or lose weight. This behavior is unhealthy because prolonged restrictive eating can be interrupted by excessive eating episodes (4). On the other hand, external eating is characterized by an inability to resist the physical characteristics of food, such as aroma and appearance, and consumption of food even when not hungry (5).

In addition to unhealthy eating attitudes, mood and anxiety disorders are frequently encountered in patients with obesity (3). It has been reported that there are positive correlations between depression, emotional and external eating behaviors (6). A positive correlation has also been found between anxiety and these unhealthy

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eating attitudes (7). Conversely, while some authors have found no association between restrictive eating, depression, and anxiety disorders, others detected a negative correlation between restrictive eating and depression in obese individuals (3,6,7). In addition to mood and anxiety disorders, low self-esteem is common in obese patients (1). It has been noted that the severity of eating disorders is negatively correlated with self-esteem (8,9). Another factor closely related to self-esteem is body dissatisfaction which is an important concept that should be evaluated, as it has been postulated that there is a relation between body dissatisfaction and disordered eating (2,10).

Few studies regarding the relations between mood and anxiety disorders, eating attitudes, body satisfaction, and self-esteem in obese individuals have reported inconsistent findings (11,12). It has been noted that depression and self-esteem mediate the effects of body dissatisfaction and body image on eating attitudes (11). In addition, it has been observed that body shame has a mediating role on low self-esteem and unhealthy eating attitudes (12).

Recently, studies conducted with overweight or obese individuals have focused on the associations between eating disorders and body satisfaction, increased attention to weight, depression, anxiety, and self-esteem rather than the prevalence of the eating disorders (9). This study aimed to determine if depressive symptoms and anxiety played a mediating role in the relation between body satisfaction, self-esteem, and eating attitudes in obese patients seeking bariatric surgery.

## MATERIAL and METHODS

This project was approved by the ethics review committee of our institution (2019/69-08). All patients gave written and verbal consent for this study. The study was conducted in accordance with the principles of the Declaration of Helsinki. Patients who presented to the general surgery department of our hospital between July 2018 and July 2019 and were referred to the psychiatry department for preoperative assessment were the target population of this study. Patients with incomplete data were excluded. In our center, all bariatric surgery candidates undergo psychiatric evaluation via Structured Clinical Interview for DSM-5 Diagnosis (SCID-5-CV) (13) by psychiatrists working at the center and psychometric assessment via administration of Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI), Rosenberg Self-Esteem Scale (RSES), Body-Cathexis Scale (BCS), and Dutch Eating Behaviors Questionnaire (DEBQ), which are all self-assessment scales. All scales' validity and reliability study had been done for their Turkish versions (14-18).

Sociodemographic data form was used to collect data including age, sex, education level, marital status, body mass index (BMI), psychiatric history, current use of psychiatric drugs, and descriptive information about obesity. BAI was developed in 1988 (19). Higher scores indicate relatively more severe anxiety.

BDI was developed in 1961 (20), and it measures the severity of depressive symptoms. RSES was developed to evaluate self-esteem (21). Ten items included in the self-esteem subscale were used in this study. BCS assesses the degree of a person's satisfaction with various parts or aspects of her/his body (22). Higher scores indicate a greater degree of body satisfaction. DEBQ consists of 33 items in three subscales: restrictive eating, emotional eating, and external eating (23). Higher scores indicate a greater degree of that eating behavior.

Psychiatrists routinely evaluate all bariatric surgery candidates at our institution. The assessments and questionnaires mentioned above are performed during these evaluations, and the relevant data are stored in patient folders. The relevant forms are reviewed by psychiatrists and psychologists. In the context of our study, we retrospectively reviewed the patient folders and results of these assessments to investigate the impact of the body dissatisfaction and self-esteem assessed by RSES and BCS on eating attitudes to reveal the potential mediating effect of anxiety and depression assessed by BDI and BAI in this relationship.

## Statistical Analysis

Data were analyzed using IBM SPSS Statistics for Windows v.25.0 (IBM Corp., Armonk, NY). Data were given as numbers (n) or percentages (%) for categorical (i.e., qualitative) variables and mean  $\pm$  standard deviations (SD) for numerical (i.e., quantitative) variables. The relations between scale scores were analyzed using Pearson's and Spearman's correlation tests. Comparison of obesity variables according to scale scores was performed using the t-test, and the mediation hypotheses were tested by Hayes Process v3.3 macro (SPSS Statistics for Windows v.25.0).

## RESULTS

Two hundred patients were included in this study. Sociodemographic and clinical data of the patients are shown in Table 1. Mean scale scores of these patients are displayed in Table 2. Our analysis revealed no significant relationship between BMI, and BDI, BAI, DEBQ subscale scores (Restrictive eating, emotional eating and external eating), or BCS and RSES scores ( $p= 0.902$ ,  $p= 0.793$ ,  $p= 0.295$ ,  $p= 0.442$ ,  $p= 0.631$ ,  $p= 0.153$ ,  $p= 0.624$  respectively) (Table 2).

Results of the statistical analysis regarding the relations between the BCS, RSES, and DEBQ subscale scores are presented in Table 3. This analysis elucidated a positive correlation between the RSES and BCS scores and a negative correlation between the RSES and DEBQ emotional eating subscale scores ( $p= 0.024$ ,  $p< 0.001$  respectively). While the correlations between these subscale scores were analyzed, the potential impact of BDI and BAI was controlled. Performance of the same analysis without controlling this potential impact revealed relatively higher correlation coefficients.

**Table 1.** Sociodemographic and clinical characteristics of the patients

Variable	Mean $\pm$ SD	n (%)
Age, years	36.61 $\pm$ 11.16	
Body mass index (BMI)	45.18 $\pm$ 7.65	
Level of education	Less than primary school	4 (2)
	Primary school	49 (24.5)
	Secondary school	33 (16.5)
	High School	66 (33)
	University	46 (23)
Sex	Female	160 (80)
	Male	40 (20)
Marital status	Single	61 (30.5)
	Married	131 (65.5)
	Widow/Divorced	8 (4)
Physical illness	Yes	80 (40)
History of psychiatric presentation	Yes	69 (34.5)
History of psychiatric drug use	Yes	64 (32)
DSM-5 diagnosis (excluding eating disorders)	Depressive disorders	15 (7.5)
	Adjustment disorder	7 (3.5)
	Anxiety disorders	5 (2.5)
	Obsessive compulsive disorder	2 (1.0)
	Bipolar disorder	2 (1.0)
	Attention deficit-hyperactivity disorder	1 (0.5)
	Substance related disorder	1 (0.5)
	Dysthymia	1 (0.5)
	Social phobia	1 (0.5)
Eating disorders and eating attitudes	Pica	2 (1.0)
	Restrictive eating	5 (2.5)
	Binge eating disorder	17 (8.5)
	Night eating syndrome	30 (15)
	Grazing	35 (17.5)
	Emotional eating	65 (32.5)

**Table 2.** Scales scores and their relation to BMI

	Mean $\pm$ SD	BMI	
		r	p
BAI	12.34 $\pm$ 9.42	0.019	0.793
BDI	14.22 $\pm$ 8.49	-0.009	0.902
RSES	20.06 $\pm$ 5.17	0.035	0.624
BCS	125.66 $\pm$ 25.02	-0.101	0.153
DEBQ - Restrictive Eating	27.83 $\pm$ 6.91	0.074	0.295
DEBQ - Emotional Eating	29.97 $\pm$ 13.14	-0.055	0.442
DEBQ - External Eating	27.68 $\pm$ 7.54	-0.034	0.631

\*p< 0.05 and \*\*p< 0.01 (Pearson's correlation test).

BAI: Beck Anxiety Inventory, BDI: Beck Depression Inventory, RSES: Rosenberg Self-Esteem Scale, BCS: Body-Cathexis Scale, DEBQ: Dutch Eating Behaviors Questionnaire.

**Table 3.** The correlation between body satisfaction, self-esteem, and eating attitude scores (Anxiety and depression were controlled)

		RSES	BCS
RSES	r	1	0.160
	p		0.024
DEBQ-Restrictive Eating	r	0.091	0.059
	p	0.200	0.408
DEBQ-Emotional Eating	r	-0.261	-0.046
	p	0.000	0.524
DEBQ-External Eating	r	-0.075	-0.071
	p	0.292	0.322

RSES: Rosenberg Self-Esteem Scale, BCS: Body-Cathexis Scale, DEBQ: Dutch Eating Behaviors Questionnaire.

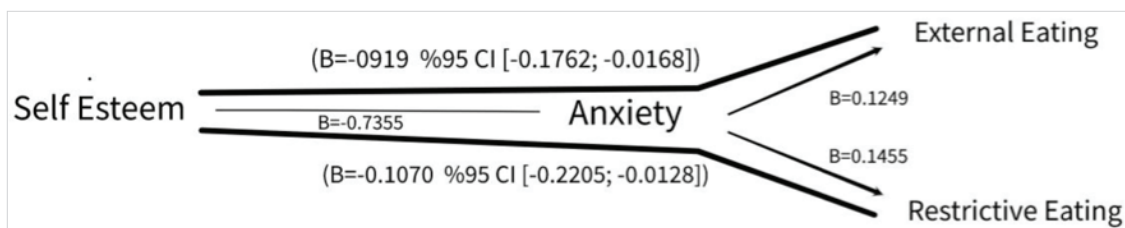
Also, other significant associations were detected between these subscales at the uncontrolled state, such as relationships between emotional eating and body satisfaction ( $r = -0.236$  and  $p = 0.001$ ), external eating and self-esteem ( $r = -0.209$  and  $p = 0.003$ ), and external eating and body satisfaction ( $r = -0.204$  and  $p = 0.004$ ).

Analysis regarding mediation hypothesis revealed that anxiety mediated the effect of body dissatisfaction on restrictive eating, depression mediated the effect of body dissatisfaction on emotional eating, anxiety mediated the effect of body dissatisfaction on external eating, anxiety mediated the effect of low self-esteem on restrictive eating, and anxiety mediated the effect of low self-esteem on external eating (Figures 1,2). How-

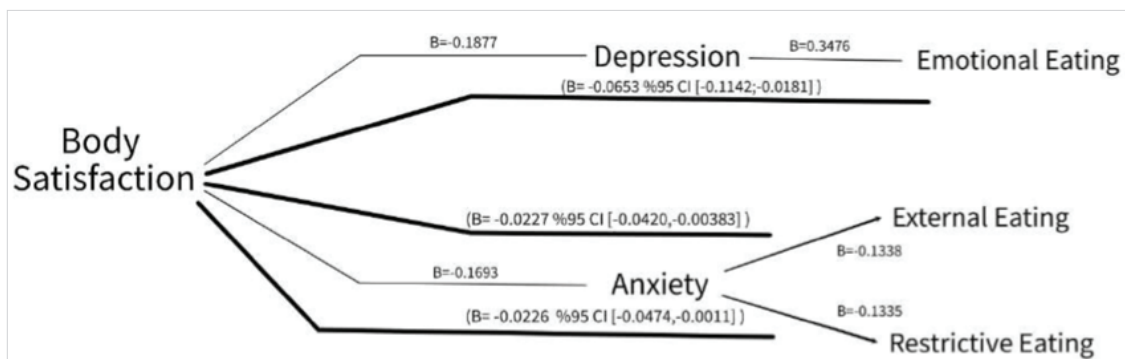
ever, other models analyzing these parameters detected no significant mediation effects.

**DISCUSSION**

This study aimed to determine the effects of body satisfaction and self-esteem on eating behaviors and whether or not anxiety and depression mediated this relationship. It showed a positive correlation between self-esteem and body satisfaction and a negative correlation between self-esteem and emotional eating. Additionally, body satisfaction had an effect on emotional eating mediated by depression and an effect on external and restrictive eating mediated by anxiety. Furthermore, anxiety mediated the relationships between self-esteem and external and restrictive eating behaviors.



**Figure 1.** Anxiety as a mediator of the association between self-esteem, external eating and restrictive eating.



**Figure 2.** Anxiety and depression as mediators of the association between body satisfaction, external eating, restrictive eating and emotional eating.

Although bariatric surgery is the most effective obesity treatment, it is known that 30% of bariatric surgery patients do not achieve optimal weight loss or regain weight after surgery. It was suggested that psychosocial status and functionality had an essential role in these outcomes (2,24), and it is widely accepted that all bariatric surgery candidates should undergo a psychological assessment (24).

Approximately 17.5% of our patients had psychopathologies other than eating disorders, which is in line with the previous reports (24). Depression was the most common diagnosis in these patients followed by adjustment and anxiety disorders. It has been reported that severe depression is a risk factor for regaining weight and a predictor for inadequate weight loss following bariatric surgery (2). It has also been suggested that there is a positive correlation between obesity and anxiety (7) and it has been reported that the presence of an anxiety disorder preoperatively is predictive for a postoperative anxiety disorder and negatively influences postoperative weight losing process (25).

We used DSM-5 criteria for evaluating our patients regarding eating disorders (26). They were also evaluated with psychometric tests to investigate eating attitudes. Data reported in the literature regarding eating attitudes are both limited and controversial (27). Although it has been shown that eating disorders are more frequent in bariatric surgery candidates than in the general patient population, the range of prevalence figures is relatively wide (27). This variation is probably due to the methodological differences between these studies. On the other hand, all of these studies agree that preoperative evaluation of these patients concerning eating attitudes is critical considering that disordered eating had adverse effects on post-bariatric surgery weight losing process (27,28).

Our study focused on the relationships of self-esteem and body satisfaction with eating attitudes, depression, anxiety, and BMI. We found no correlation between BMI, self-esteem, or body satisfaction in our study. However, as expected, there was a positive correlation between self-esteem and body satisfaction (29).

It is widely accepted that the relation between self-esteem and BMI is complex (1). While some studies have shown that being obese or overweight is associated with low self-esteem, others have found no relation between these variables when body dissatisfaction is controlled (12,30). The absence of a relation between BMI and self-esteem and body dissatisfaction in the present study might have been because the potential mediators affecting this relationship were not included in our analysis.

It has been previously shown that low self-esteem, body dissatisfaction, and unhealthy eating attitudes are prevalent in obese individuals, and they are all associated with the psychopathological status of the patients (31). Therefore, our study aimed to determine whether depression and anxiety mediated the

effects of low self-esteem and body dissatisfaction on dysfunctional eating. Our analysis revealed a correlation between low self-esteem and emotional eating. We found that body dissatisfaction did not directly affect eating attitudes, and depression and anxiety mediated the effects of body dissatisfaction on emotional, restrictive, and external eating. Furthermore, the effects of low self-esteem on restrictive and external eating were mediated by anxiety as per our analysis.

It is known that negative emotions such as stress and depressive thoughts that contribute to weight gain are associated with body dissatisfaction and low self-esteem (30,32). Although some studies have suggested that self-esteem is related to vulnerability to eating disorders, others have reported no relation between self-esteem and eating disorders (12). Since emotional eating is a strategy to cope with negative emotions or to experience positive emotions, negative emotions caused by body dissatisfaction and low self-esteem can trigger emotional eating (30). In line with this, it has been noted that there is a significant relation between depression and emotional eating (33). Emotional eating has also been shown to mediate the relationship between depression and obesity (4). These findings indicate that eating attitudes and mood disorders have variable effects on patient weight. Our study found a direct relation between self-esteem and emotional eating. While we did not find a direct relation between body satisfaction and emotional eating, we found that body satisfaction was related to emotional eating via the mediation of depression.

External eating is an eating attitude depending on external stimuli (5). In the literature, although there is no direct relationship between depression and external eating, it is known that there is a relationship between impulsivity and external eating, and depression affects impulsivity (33). In addition, it has been reported that depression is related to increased fast-food intake via external eating (5). Previous reports have also suggested that stress could increase responsiveness to external food cues and stimulate eating in individuals with external eating (33). In our study, we found that body satisfaction and self-esteem had an effect on external eating mediated by anxiety. While it could be suggested that stress, impulsivity, or other factors contribute to this mediatory effect, the exact mechanism could not be elucidated due to the retrospective design of our study.

Restrictive eating is more common in obese than non-obese individuals (13,34). As it is known that there is a relationship between body dissatisfaction and restrictive eating pattern, it can be suggested that obese individuals will resort to this strategy to lose weight and alleviate negative emotions (34). It has been reported that body dissatisfaction and depression have partial effect on the development of bulimic disposition and restrictive eating (4). On the other hand, there is limited data on the relation between self-esteem and restrictive eating (8). A study regarding eating disorders has reported that patients with re-

strictive eating have higher self-esteem than those with binge or purge behavior or bulimia nervosa (8). Although it is widely accepted that body dissatisfaction is associated with weight loss, restrictive eating, and bulimia, a negative affect has been found to mediate the relation between body dissatisfaction and restrictive eating in adult females, but not in adult males (35). It has been reported that depression and self-esteem mediate the effect of body dissatisfaction on eating disorders, especially in patients with bulimic and restrictive eating and compensatory behaviors, while they only partially mediate the effect of body image on eating disorders (11). In the light of the present findings, it can be stated that the relations between low self-esteem, body dissatisfaction, and eating attitudes are multifaceted and complex. Further research is required to delineate these relations and fully understand the mediation effects of depression and anxiety on these relations.

This study has some limitations which need to be considered. First, it included obese patients who presented for bariatric surgery, and thus, its findings cannot be generalized to a broader patient population. Second, it employed self-report scales, and it should be considered that some patients might have given socially acceptable answers. Also, the cross-sectional nature of the study represents another limitation.

## CONCLUSION

Bariatric surgery is considered the most effective obesity treatment, and psychiatric evaluation is of great importance in bariatric surgery candidates to identify and treat psychopathologies and improve self-esteem, eating attitudes, and body satisfaction. Assessment of these patients regarding self-esteem, body dissatisfaction, and eating attitudes necessitates a more comprehensive work-up than screening for depression and anxiety. Furthermore, treatments given after these assessments are not always readily available. Our study found that depression and anxiety had mediator effects on the relationship between self-esteem, body dissatisfaction, and eating attitudes. Our findings indicate that interventions for depression and anxiety can affect eating attitudes with their mediator roles and show that there are complex relations between self-esteem, body image, psychopathology, and eating attitudes.

**Ethics Committee Approval:** This study was approved by Turkish Ministry of Health University of Health Sciences Dışkapı Yıldırım Beyazıt Training and Research Hospital Clinical Research Ethics Committee (Decision no: 69/08, Date: 05.08.2019).

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**Conflict of Interest:** The authors have no conflicts of interest to declare.

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## REFERENCES

1. Chu DT, Minh Nguyet NT, Nga VT, Thai Lien NV, Vo DD, Lien N, et al. An update on obesity: Mental consequences and psychological interventions. *Diabetes Metab Syndr* 2019; 13(1): 155-60. <https://doi.org/10.1016/j.dsx.2018.07.0152>.
2. Ünal Ş, Sevinçer GM, Maner AF. Bariatrik cerrahi sonrası kilo geri alimnin; gece yeme, duygusal yeme, yeme endişesi, depresyon ve demografik özellikler tarafından yordanması [Prediction of weight regain after bariatric surgery by night eating, emotional eating, eating concerns, depression and demographic characteristics]. *Turk Psikiyatri Derg* 2019; 30(1): 31-41. Turkish.
3. Sevinçer G, Coskun H, Konuk N, Bozkurt S. Psychiatric and psychosocial aspects of bariatric surgery. *Psikiyatride güncel yaklaşımlar-Current approaches in psychiatry* 2014; 6(1): 32-44. <https://doi.org/10.5455/cap.20130719123555>
4. Wertheim EH, Koerner J, Paxton SJ. Longitudinal predictors of restrictive eating and bulimic tendencies in three different age groups of adolescent girls. *J Youth Adolesc* 2001; 30(1): 69-81. <https://doi.org/10.1023/A:1005224921891>
5. Kakoschke N, Kemps E, Tiggemann M. External eating mediates the relationship between impulsivity and unhealthy food intake. *Physiol Behav* 2015; 147: 117-21. <https://doi.org/10.1016/j.physbeh.2015.04.030>
6. Paans NPG, Bot M, Brouwer IA, Visser M, Penninx BWJH. Contributions of depression and body mass index to body image. *J Psychiatr Res* 2018; 103: 18-25. <https://doi.org/10.1016/j.jpsychires.2018.05.003>
7. Garipey G, Nitka D, Schmitz N. The association between obesity and anxiety disorders in the population: A systematic review and meta-analysis. *Int J Obes (Lond)* 2010; 34(3): 407-19. <https://doi.org/10.1038/ijo.2009.252>
8. Obeid N, Buchholz A, Boerner KE, Henderson KA, Norris M. Self-esteem and social anxiety in an adolescent female eating disorder population: Age and diagnostic effects. *Eat Disord* 2013; 21(2): 140-53. <https://doi.org/10.1080/10640266.2013.761088>
9. Nightingale BA, Cassin SE. Disordered eating among individuals with excess weight: A review of recent research. *Curr Obes Rep* 2019; 8(2): 112-7. <https://doi.org/10.1007/s13679-019-00333-5>
10. McLean SA, Paxton SJ. Body image in the context of eating disorders. *Psychiatr Clin North Am* 2019; 42(1): 145-56. <https://doi.org/10.1016/j.psc.2018.10.006>
11. Brechan I, Kvaalem IL. Relationship between body dissatisfaction and disordered eating: Mediating role of self-esteem and depression. *Eat Behav* 2015; 17: 49-58. <https://doi.org/10.1016/j.eatbeh.2014.12.008>
12. Iannaccone M, D'Olimpio F, Cella S, Cotrufo P. Self-esteem, body shame and eating disorder risk in obese and normal weight adolescents: A mediation model. *Eat Behav* 2016; 21: 80-3. <https://doi.org/10.1016/j.eatbeh.2015.12.010>
13. First MB. Structured clinical interview for the DSM (SCID). *The Encyclopedia of Clinical Psychology* 2014: p1-6. <https://doi.org/10.1002/9781118625392.wbecp351>
14. Ulusoy M, Sahin NH, Erkmen H. Turkish version of the Beck Anxiety Inventory: Psychometric properties. *J Cogn Ther* 1998; 12(2): 163.

15. Hisli N. Beck depresyon envanterinin üniversite öğrencileri için geçerliliği, güvenilirliği. (A reliability and validity study of Beck Depression Inventory in a university student sample). *J Psychol* 1989; 7: 3-13.
16. Bozan N, Bas M, Asci FH. Psychometric properties of Turkish version of Dutch Eating Behaviour Questionnaire (DEBQ). A preliminary results. *Appetite* 2011; 56(3): 564-6. <https://doi.org/10.1016/j.appet.2011.01.025>
17. Cuhadaroglu F. Self-esteem in the adolescent. Unpublished doctoral dissertation, Hacettepe University, Ankara, Türkiye. 1986.
18. Hovardaoglu S. Vücut algısı ölçeği [The appraisal of body-cathexis]. *Psikiyatri, Psikoloji, Psikofarmakoloji (3P) Dergisi* 1993; 1(1): 26.
19. Beck AT, Epstein N, Brown G, Steer RA. An inventory for measuring clinical anxiety: psychometric properties. *J Consult Clin Psychol* 1988; 56(6): 893-7. <https://doi.org/10.1037/0022-006X.56.6.893>
20. Beck At, Ward Ch, Mendelson M, Mock J, Erbaugh J. An inventory for measuring depression. *Arch Gen Psychiatry* 1961; 4: 561-71. <https://doi.org/10.1001/archpsyc.1961.01710120031004>
21. Rosenberg M. Society and the adolescent self-image: Princeton university press; 2015.
22. Secord PF, Jourard SM. The appraisal of body-cathexis: Body-cathexis and the self. *J Consult Psychol* 1953; 17(5): 343-7. <https://doi.org/10.1037/h0060689>
23. Van Strien T, Frijters JE, Bergers GP, Defares PB. The Dutch Eating Behavior Questionnaire (DEBQ) for assessment of restrained, emotional, and external eating behavior. *Int J Eat Disord* 1986; 5(2): 295-315. [https://doi.org/10.1002/1098-108X\(198602\)5:2<295::AID-EAT2260050209>3.0.CO;2-T](https://doi.org/10.1002/1098-108X(198602)5:2<295::AID-EAT2260050209>3.0.CO;2-T)
24. Sarwer DB, Allison KC, Wadden TA, Ashare R, Spitzer JC, McCuen-Wurst C, et al. Psychopathology, disordered eating, and impulsivity as predictors of outcomes of bariatric surgery. *Surg Obes Relat Dis* 2019; 15(4): 650-5. <https://doi.org/10.1016/j.soard.2019.01.029>
25. Sogg S, Lauretti J, West-Smith L. Recommendations for the presurgical psychosocial evaluation of bariatric surgery patients. *Surg Obes Relat Dis* 2016; 12(4): 731-49. <https://doi.org/10.1016/j.soard.2016.02.008>
26. American Psychiatric Association. *Diagnostic and statistical manual of mental disorders: DSM-5 (5th ed.)*. Arlington, VA: American Psychiatric Publishing. 2013
27. Brode CS, Mitchell JE. Problematic eating behaviors and eating disorders associated with bariatric surgery. *Psychiatr Clin North Am* 2019; 42(2): 287-97. <https://doi.org/10.1016/j.psc.2019.01.014>
28. Fink-Miller E, Rigby A. The utility of the weight and lifestyle inventory (WALI) in predicting 2-year weight loss after bariatric surgery. *Obes Surg* 2017; 27(4): 933-9. <https://doi.org/10.1007/s11695-016-2385-8>
29. Henriques GR, Calhoun LG. Gender and ethnic differences in the relationship between body esteem and self-esteem. *J Psychol* 1999; 133(4): 357-68. <https://doi.org/10.1080/00223989909599748>
30. Mond J, van den Berg P, Boutelle K, Hannan P, Neumark-Sztainer D. Obesity, body dissatisfaction, and emotional well-being in early and late adolescence: Findings from the project EAT study. *J Adolesc Health* 2011; 48(4): 373-8. <https://doi.org/10.1016/j.jadohealth.2010.07.022>
31. Sarwer DB, Polonsky HM. The psychosocial burden of obesity. *Endocrinol Metab Clin North Am* 2016; 45(3): 677-88. <https://doi.org/10.1016/j.ecl.2016.04.016>
32. Sowislo JF, Orth U. Does low self-esteem predict depression and anxiety? A meta-analysis of longitudinal studies. *Psychol Bull* 2013; 139(1): 213-40. <https://doi.org/10.1037/a0028931>
33. Ouwens MA, van Strien T, van Leeuwe JF. Possible pathways between depression, emotional and external eating. A structural equation model. *Appetite* 2009; 53(2): 245-8. <https://doi.org/10.1016/j.appet.2009.06.001>
34. Ribeiro-Silva RC, Fiaccone RL, Conceição-Machado MEPD, Ruiz AS, Barreto ML, Santana MLP. Body image dissatisfaction and dietary patterns according to nutritional status in adolescents. *J Pediatr (Rio J)* 2018; 94(2): 155-61. <https://doi.org/10.1016/j.jpmed.2017.05.005>
35. Heywood S, McCabe MP. Negative affect as a mediator between body dissatisfaction and extreme weight loss and muscle gain behaviors. *J Health Psychol* 2006; 11(6): 833-44. <https://doi.org/10.1177/1359105306069077>

**ORJİNAL ÇALIŞMA-ÖZET**

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**Obezite cerrahisi adaylarında benlik saygısı, beden memnuniyetsizliği ve yeme tutumları arasındaki ilişki**

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**ÖZET**

**Giriş ve Amaç:** Benlik saygısı, yeme tutumları ve beden memnuniyetinin obezite ve bariyatrik cerrahi sonuçları üzerindeki etkileri göz önüne alındığında, psikiyatrik değerlendirme, psikopatolojinin belirlenmesi ve tedavisi, benlik saygısı, yeme tutumları ve beden memnuniyetinin iyileştirilmesi için önemlidir. Bu çalışmada, bariyatrik cerrahi arayışında olan hastalarda yeme davranışları, beden memnuniyetsizliği, benlik saygısı ve psikolojik belirtiler arasındaki ilişkileri belirlemek amaçlanmıştır. İkinci amacımız beden memnuniyeti ve benlik saygısı ile yeme tutumları arasındaki ilişkide depresif belirtiler ve anksiyetenin, aracı rolü olup olmadığının belirlenmesidir.

**Gereç ve Yöntem:** Bu çalışma 200 hasta içermektedir. Hastaların verileri geriye dönük olarak değerlendirildi. Ameliyat öncesi dönemde yapılan psikometrik değerlendirme, psikiyatrik muayene ve Beck Depresyon Envanteri, Beck Anksiyete Envanteri, Rosenberg Benlik Saygısı Ölçeği, Vücut Algısı Ölçeği ve Hollanda Yeme Davranışı Anketi'nin uygulanmasını içeriyordu.

**Bulgular:** Benlik saygısı ile beden memnuniyeti arasında pozitif, benlik saygısı ile duygusal yeme arasında negatif yönde bir ilişki vardı ( $r= 0,160$ ,  $p= 0,024$ ;  $r= -0,261$ ,  $p< 0,001$  sırasıyla). Beden memnuniyeti, duygusal yeme üzerinde depresyon aracılığıyla ve dışsal ve kısıtlayıcı yeme üzerinde anksiyete aracılığıyla etkiye sahipti. Ayrıca benlik saygısı ile dışsal ve kısıtlayıcı yeme davranışları arasındaki ilişkilere anksiyetenin aracılık etkisi saptandı.

**Sonuç:** Depresyon ve anksiyetenin benlik saygısı, beden memnuniyetsizliği ve yeme tutumları arasındaki ilişkide aracı etkisinin olduğuna dair bulgularımız, bu özelliklerin klinik ortamlarda taranması ve tedavileri nispeten daha pratik olduğu için önemlidir.

**Anahtar Kelimeler:** Depresyon, anksiyete, yeme tutumları, benlik saygısı, beden algısı

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