

Kadınlarda meme hacminin psikolojik ilişkileri: Benlik saygısı ve beden algısı açısından çıkarımlar

The psychological correlates of breast volume in women: Implications for self-esteem and body perception

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Özet

Amaç: Meme, kadın vücudunun ayırt edici ve önemli bir parçası olup, hem fiziksel hem de psikososyal iyi oluşu etkiler. Bu çalışma, yetişkin kadınlarda meme hacmi ile beden algısı ve benlik saygısı arasındaki ilişkiyi değerlendirmeyi amaçlamıştır.

Yöntemler: Bu kesitsel çalışmaya, meme polikliniğine veya KETEM'e başvuran ve dahil edilme kriterlerini karşılayan, 18 yaş ve üzerindeki 343 kadın dahil edilmiştir. Boy, kilo ve vücut kitle indeksi araştırmacılar tarafından ölçülmüş, meme hacmi ise Grossman-Roudner Disk kullanılarak değerlendirilmiştir. Katılımcılara ayrıca yüz yüze görüşme yoluyla Rosenberg Benlik Saygısı Ölçeği (RSES), Beden Algısı Ölçeği (BCS) ve sosyodemografik anket uygulanmıştır.

Bulgular: Katılımcıların ortalama yaşı $41,2 \pm 12,4$ yıl, her iki memenin ortalama hacmi ise $367,9 \pm 159,9$ cm³ olarak belirlenmiştir. Rosenberg Benlik Saygısı Ölçeği (RBSÖ) ile değerlendirilen benlik saygısının, meme hacmi ve medeni durum ile anlamlı bir ilişki gösterdiği saptanmıştır. Ancak meme hacmi ile Beden Algısı Ölçeği (BAÖ) üzerinden ölçülen beden algısı arasında anlamlı bir ilişki bulunmamıştır. Daha büyük meme hacmine sahip olan ve evli olan kadınların, diğer katılımcılara kıyasla daha yüksek benlik saygısına sahip oldukları görülmüştür.

Tartışma ve Sonuç: Daha büyük meme hacmine (>375 cm³) sahip olmanın ve evli olma durumunun, daha yüksek benlik saygısı ile ilişkili olabileceği bulunmuştur. Buna karşın, meme hacmi ile beden algısı arasında anlamlı bir ilişki saptanmamıştır. Bu bulgular, kadınların benlik saygısının hem fiziksel hem de psikososyal faktörlerden etkilenebileceğini düşündürmektedir. Kadınların psikolojik iyi oluşunu daha kapsamlı bir şekilde değerlendirebilmek için birden fazla faktörün dikkate alınması yararlı olabilir.

Anahtar kelimeler: Meme, benlik kavramı, beden algısı, kadın

Summary

Aim: The breast is a distinctive and significant part of the female body, influencing both physical and psychosocial well-being. This study aimed to evaluate the relationship between breast size, body image, and self-esteem in adult women.

Methods: This cross-sectional study included 343 women aged 18 and above who visited the Breast Outpatient Clinic or KETEM and met the inclusion criteria. Height, weight, and body mass index were measured by the researchers, and breast volume was assessed using the Grossman-Roudner Disk. Participants also completed the Rosenberg Self-Esteem Scale (RSES), the Body Cathexis Scale (BCS), and a sociodemographic questionnaire via face-to-face interviews.

Results: The mean age of the participants was 41.2 ± 12.4 years, and the average volume of both breasts was 367.9 ± 159.9 cm³. Self-esteem, assessed using the Rosenberg Self-Esteem Scale (RSES), was found to be significantly associated with breast volume and marital status. However, no significant relationship was observed between breast volume and body image measured by the Body Cathexis Scale (BCS). Women with larger breast volumes and those who were married were found to have higher self-esteem compared to other participants.

Discussion and Conclusion: Having a larger breast volume (>375 cm³) and being married may be associated with higher self-esteem. In contrast, no significant relationship was observed between breast volume and body image. These findings suggest that self-esteem in women could be influenced by both physical and psychosocial factors. Considering multiple factors may be useful for a more comprehensive assessment of women's psychological well-being.

Keywords: Breast; self-concept; body image; women

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Introduction

The breast is a distinctive part of the female body.^[1] Breasts have many anatomical variations with respect to volume, width, length, projection, density, composition, shape, and placement on the chest wall. Nevertheless, breast shape and size can change for an individual woman over different periods, such as premenstrual, menstrual, pregnancy, and menopause. Beyond lactation, breasts are a symbol of femininity, charm, and sexuality for women. As a result, when there is an illness concerning the breast, it not only affects a body part but also a woman's psychology and emotional well-being.

The loss of a breast as an organ that represents motherhood, sexuality, and aesthetics, is often interpreted as a loss of attraction, fertility, sexuality, and womanhood. Breasts also play an important role in body sensation. Body perception is how one's body appears in her mind. The stimuli from both the outside and within give the impression of a unified body.

The body sensation, which is the whole mental design of the body organs, lays the foundation for the idea of "I," and precipitates a fundamental preoccupation in the subsequent formation of the ego.^[2,3] Self-esteem is closely related to how an individual perceives themselves and their body. As physical contentment increases, so does self-esteem, which yields positive feelings and a sense of ease about one's situation in life. Physical health problems, on the other hand, can deteriorate body image, which in turn weakens self-esteem.^[4]

There are studies in the literature on whether women are satisfied with their breast size.^[5,6] In addition, there are studies to determine breast size using objective measurement techniques.^[1,7,8] According to a literature

survey, no study was found that measures breast size with an objective technique and examines its effect on women's mental health. The goal of the present study was to investigate the effect of breast size on body image and self-esteem in women.

Methods

The study population consisted of approximately 900 women aged 18 years and older who visited the Breast Outpatient Clinic of the University of Health Sciences Konya Training and Research Hospital or the Cancer Early Diagnosis, Screening, and Training Center (KETEM) over a 3-month period for any reason. In addition to the patients themselves, accompanying relatives who met the inclusion criteria were also invited to participate voluntarily. The inclusion criteria for the study were: willingness to participate, no history of breast-related surgery or disease, absence of severe chronic illness, and no history of psychiatric disorders.

Among those meeting these criteria, the research questionnaire was administered face-to-face by the researchers to 343 individuals. Written informed consent was obtained from each participant prior to data collection. Anthropometric measurements, including height, weight, and Body Mass Index (BMI), as well as breast volume, were conducted by the researchers, with breast volume measured using the Grossman-Roudner Disk. Following the completion of these measurements, participants completed a questionnaire comprising the Rosenberg Self-Esteem Scale (RSES), the Body Cathexis Scale (BCS), and a sociodemographic data form through face-to-face interviews with the researchers.

The Grossman-Roudner (GR) device is a graduated disc made of hard transparent polyvinyl chloride

material, which can be formed into a cone-shaped device by means of a cut to the center along a radius line. The disk was chosen according to breast size. Disk sizes were 16 cm (to measure volumes up to 150–200 cm³), 18 cm (to measure volumes up to 200–300 cm³), 20 cm (to measure volumes up to 300–425 cm³) 24 and 28 cm in order to measure larger volumes (500–700 cm³ and 700–1500 cm³, respectively).^[9, 10]

Sociodemographic information form was prepared by the researchers. It included 16 questions such as age, marital status, education, residence, income, job, tobacco usage, number of births, and age of first birth giving, total breastfeeding period, first menarche age, and age of menopause.

The Body Cathexis Scale (BCS) was developed by Secord and Jourard in 1953. There were 101 items in the original scale. There were 40 items in the Turkish form after it was adapted into Turkish by Hovardaoğlu. Each item has 5 choices. Scoring: 1- Never like, 2- Don't like much, 3- Undecided, 4- Like, 5- Like a lot. The cut-off point is 135, and <135 points means the person has a negative body perception.^[11-13]

Rosenberg's Self-Esteem Scale (RSES) was developed by Rosenberg in 1963. Its validity and reliability in Turkish were established by Çuhadaroğlu. Each question has 4 choices such as: strongly disagree, disagree, agree, strongly agree. Scoring: 0-1 points is interpreted as high self-esteem, 2-4 points as moderate self-esteem, and 4-6 points as low self-esteem.^[14,15]

Ethical Approval, Informed Consent and Permissions

Ethical approval for this study was obtained from the Ethics Committee of Selçuk University (Date:

27.09.2017 – No: 2017/278). Subsequently, research permit approval was obtained from the hospital's chief medical officer. This study was performed in line with the principles of the Declaration of Helsinki. An "informed consent" form was given to the volunteers who participated in the study, and their personal consent was obtained.

Statistical Analysis

Statistical analyses were performed using the SPSS version 21.0 software package (IBM Corp., Armonk, NY, USA). Descriptive statistics, including minimum, maximum, mean, standard deviation, median, and percentages, were calculated. Group comparisons were conducted to determine statistically significant differences. An independent samples t-test was used when the dependent variable was continuous and the independent variable had two categories.

For comparisons involving more than two independent groups, a one-way ANOVA was performed. The homogeneity of variances, an assumption for both the independent samples t-test and one-way ANOVA, was assessed using Levene's test. When significant differences were detected, post-hoc analyses were conducted using either the Tukey HSD or Games-Howell test, depending on whether the homogeneity of variances assumption was met. A p-value of <0.05 was considered statistically significant.

Results

The sociodemographic background of the participants is listed in **Table 1**. The mean age was 41.2±12.4 (min=18, max=68) and the mean menarche age was 13.2±1.3 (min=9, max=18) years old. The mean number of deliveries was 2.8±1.2 (min=1, max=8), the mean

Tablo 1: Sociodemographic properties (n=343)

	n	%
Marital status		
Married	250	72.8
Single	93	27.2
Education		
Literate	9	2.7
Primary School	160	46.6
Elementary School	13	3.8
High School	42	12.2
College and Higher	121	35.3
Residence		
Village	11	3.2
Town	25	7.3
City	307	89.5
Income		
Low	182	53.0
Moderate	132	38.5
High	29	8.5
Working status		
Working	75	21.9
Housewife	210	61.2
Student	58	16.9
Smoking		
Yes	51	14.9
No	292	85.1
Delivery		
Yes	264	77.0
No	79	23.0
In menopausal period		
Yes	95	27.7
No	248	72.3
Total	343	100.0

age of first delivery was 22.3 ± 4.2 (min=15, max=38), and the mean breastfeeding duration was 37.1 ± 25.4 (min=0, max=150) months. Of the 95 postmenopausal women, the mean menopause age was 46.9 ± 5.2 (min=30, max=57) years old.

The comparison of the mean volume of both breasts and sociodemographic and anthropometric parameters was displayed in **Table 2**.

When the participants were asked how pleased they were with their breasts on the BCS, 7% (n=24) didn't like them at all, 12.2% (n=42) didn't like them much, 10.8% (n=37) were unsure, 51% (n=175) liked them, and 19% (n=65) liked them a lot.

The relationship between RSES and BCS scores and breast volume is displayed in **Table 3**. Post-hoc pairwise comparisons using Tukey's HSD test revealed a statistically significant difference between the Normal and Macromastia groups (Mean Difference = 0.223, $p = 0.033$). No significant differences were observed between the Small and Normal groups (Mean Difference = -0.157, $p = 0.237$) or between the Small and Macromastia groups (Mean Difference = 0.066, $p = 0.626$) (**Table 4**).

The comparison of sociodemographic parameters and both RSES and BCS scores is listed in **Table 5**.

These findings indicate that participants in the **Macromastia** group scored significantly higher than those in the **Normal** group, whereas the **Small** group did not differ significantly from either the **Normal** or **Macromastia** groups.

Discussion

Breasts represent a woman's femininity, mother-

hood, sexuality, and attractiveness. Breast size varies across races and individuals, and it also varies for the same person according to age, genetics, weight gain, number of pregnancies, breastfeeding period, breast thickness and flexibility, and breast placement.^[1,7,9]

In this study, we investigated the effect of breast size, a matter considered crucial for femininity, on body perception and self-esteem. According to the literature screening performed, a similar study on this subject was not found.

Previous studies have reported variability in breast volumes across different populations. In Türkiye, average breast volumes among healthy women ranged from 272.9 to 407.2 cm³^[1,7,16], while in China, women

undergoing breast surgery had a mean volume of 340.0 ± 109.1 cm³.^[8] In the present study, 343 women (mean age 41.2 ± 12.4 years) had an average breast volume of 367.9 ± 159.9 cm³, suggesting that these differences may be due to population characteristics and measurement techniques and highlighting the need for context-specific assessments.

Normal breast volume ranges from 275 to 375 cm³ depending on weight and height, with a 50% increase above this range defined as macromastia.^[9] Participants were categorized as small (<275 cm³), normal (275–375 cm³), or large (>375 cm³). Mean breast volume was associated with age, age at first birth, total breastfeeding duration, BMI, and height, while no significant rela-

Tablo 2: Sociodemographic characteristics and anthropometric measurements comparison with total breast volume

	Total Breast Volume						
	< 275 cc		275-375 cc		> 375 cc		p
	n	$\bar{x} \pm SD^*$	n	$\bar{x} \pm SD^*$	n	$\bar{x} \pm SD^*$	
Age	98	38.3±11.6	85	35.9±13.3	160	45.8±10.8	<0.001
Number of delivery**	74	2.6±1.2	52	2.9±1.5	138	2.9±1.2	0.164
Age of first delivery**	74	23.3±4.6	52	22.4±4.4	138	21.7±3.8	0.030
Total breastfeeding duration (m)**	74	30.2±21.1	52	36.5±25.7	138	41.0±26.7	0.012
Age of menarche	98	13.1±1.2	85	13.2±1.3	160	13.2±1.4	0.759
Age of menopause***	20	46.1±3.8	13	45.3±6.8	62	47.5±5.2	0.294
BMI (kg/m)****	98	23.5±3.6	85	25.3±4.4	160	30.0±4.6	<0.001
Height (cm)	98	161±5.4	85	161.7±6.4	160	159.9±5.8	0.029

*SD: Standard Deviasyon / **264 participants who gave birth were evaluated. / ***95 participants who are menopause were evaluated. / ****BMI: Body Mass Index. Statistical test: One-way ANOVA was used for group comparisons.

onships were found with parity, menarche, or menopause. Previous studies have consistently reported BMI as a key determinant of breast volume. [1,7,8]

In terms of breast satisfaction assessed by the BCS, 7% of participants reported being not satisfied at all, 12.2% not very satisfied, 10.8% were unsure, 51% satisfied, and 19% very satisfied. Previous studies have reported varying patterns of breast satisfaction. In Turkey, among 102 women, 57.8% had undergone mammoplasty.[17] In Brazil, a study using the Breast Size Rating Scale (BSRS) found that 65.5% of women desired larger breasts, 13.9% smaller breasts, and 20.6% were satisfied with their current size.[5]

Furthermore, a large international study including 18,541 women from 40 countries reported that 48%

wanted larger breasts, 23% smaller, and 30% were satisfied with their current breast size; among 211 Turkish participants in this study, 46% wanted larger breasts, 26% smaller, and 28% were satisfied.[6] These findings indicate that breast satisfaction in our sample was notably higher than in previous studies, which may be attributable to cultural, sociodemographic, or sample selection differences. Women's general dissatisfaction with their breasts may be related to societal pressures and ideals of femininity. Romantic partner preferences may also influence women's attitudes toward their breasts.[18]

In this study, a significant relationship was found between breast size and RSES. Women with a breast volume greater than 375 cm³ were found to have

Tablo 3: RSES and BCS*** Scores relation with total breast volume**

Total Breast Volume	RSES**			BCS***		
	n	$\bar{x} \pm SD^*$	p	n	$\bar{x} \pm SD^*$	p
< 275 cm ³	98	0.9±0.5	0.020	98	149.1±20.5	0.674
275- 375 cm ³	85	1.0±0.7		85	148.5±19.5	
>375 cm ³	160	0.8±0.5		160	146.9±20.2	

* SD: Standart Deviation. **RSES: Rosenberg's Self Esteem Scale. ***BCS: Body Cathexis Scale (BCS). Statistical test: One-way ANOVA was used for group comparisons.

Tablo 4: Post-hoc pairwise comparisons of breast size groups

Group Comparison	Mean Difference (I-J)*	Std. Error	p-value
Small - Normal	-0.157	0.096	0.237
Small - Macromastia	0.066	0.071	0.626
Normal - Macromastia	0.223	0.088	0.033

* Positive values indicate that the first group scored higher than the second. statistically significant differences ($p < 0.05$) are highlighted in bold. Tukey's HSD test was used.

higher self-esteem. Although this finding does not directly assess femininity, considering that breasts are culturally regarded as symbols of femininity and sexuality^[19] it can be suggested that larger breast size may be associated with a greater perception of femininity, which in turn could have a positive effect on self-esteem. Indeed, the literature also reports that larger breasts are associated with higher perceptions of femininity and sexuality.^[20]

Diseases can lead to changes in an individual's appearance, which may in turn affect self-perception.^[21] Physical or mental health conditions that negatively impact appearance have been shown to adversely influence body image.^[21-24] In particular, illnesses affecting reproductive organs and breasts may alter wo-

men's body image, as these organs are closely linked to perceptions of femininity and motherhood.^[25-26] The literature also reports that women who are dissatisfied with their breasts tend to experience greater overall body dissatisfaction.^[20,27]

Moreover, breast size is generally weakly associated with overall body image and self-esteem, as dissatisfaction with breasts does not necessarily generalize to broader body perception or self-worth.^[28] In our study, the majority of participants (70%) reported satisfaction with their breasts, and the sample consisted of generally healthy women; consequently, no significant association was found between breast size and body image. However, a significant relationship was observed between breast size and self-esteem. These

Tablo 5: RSES and BCS*** Scores associations with sociodemographic characteristics**

		RSES**			BCS***		
		n	$\bar{x} \pm SD^*$	p	n	$\bar{x} \pm SD^*$	p
Marital status	Married	250	0.8±0.5	0.001	250	148.5±20.3	0.441
	Single	93	1.0±0.7		93	146.6±19.7	
Education	Primary School and Below	180	0.9±0.5	0.936	180	147.9±20.2	0.962
	Middle School and Above	163	0.9±0.6		163	148.0±20.0	
Working status	Working	75	0.8±0.5	0.425	75	150.2±20.5	0.280
	Nonworking	268	0.9±0.6		268	147.3±20.0	
Smoking	Yes	51	1.0±0.6	0.075	51	146.7±24.9	0.630
	No	292	0.8±0.5		292	148.2±19.2	
Menopausal status	Yes	95	0.8±0.5	0.100	95	147.5±17.4	0.811
	No	248	0.9±0.6		248	148.1±21.1	

* SD: Standart Deviation. **RSES: Rosenberg's Self Esteem Scale. ***BCS: Body Cathexis Scale (BCS). Statistical test: Independent samples t-test was used for comparisons between two groups.

findings suggest that dissatisfaction with breast size may reflect specific concerns rather than a broader negative body image, highlighting the importance of considering breast satisfaction as a distinct and meaningful aspect of women's psychological well-being.

A significant relationship was found between marital status and self-esteem (RSES); married women were observed to have higher self-esteem compared to single women. This finding is consistent with previous research suggesting that marital status may positively influence self-esteem.^[29] However, no significant association was observed between marital status and breast satisfaction (BCS). Some studies, however, have reported that married women exhibit higher body image scores.^[30] These findings suggest that marital status may affect overall self-esteem, whereas its impact on body image and breast satisfaction may be more variable and context-dependent.

Menopause represents a transitional period affecting both breast characteristics and psychosocial factors. Increases in breast size and fat content post-menopause have been associated with concurrent weight gain; however, changes such as increased ptosis may also influence breast satisfaction.^[31] In the present study, no significant relationship was observed between RSES and BCS when comparing menopausal and non-menopausal groups.

Menopause is closely related to age, which itself may influence self-esteem and body perception. The literature presents conflicting findings on this topic: some studies suggest that higher age is associated with increased self-esteem and reduced body dissatisfaction^[13,32] whereas other studies report no significant association between age and these psychological variables.^[33] Within the context of the present

study, menopausal status and age may potentially affect self-esteem and body perception, but these factors did not alter the relationship between breast volume and psychological outcomes. This allows the study to maintain its primary focus on the psychological correlates of breast size.

Body image and self-esteem are not independent of cultural context. In Turkish society, the role of women is often strongly associated with being a spouse, providing care, motherhood, and maintaining family cohesion. Consequently, perceptions and changes related to breast size and satisfaction may affect not only individual self-esteem and body image but also family dynamics, particularly marital relationships. As women's body image and quality of life can directly influence their families, children, and societal health, it is important to interpret these findings within the local cultural context.^[34] The present study demonstrates that the impact of breast size on women's psychology is multidimensional, with menopausal status, marital status, and cultural factors interacting with each other; this highlights the necessity of considering these factors when designing psychosocial support and intervention strategies.

Limitations

The age distribution in our study ranged from 18 to 70 years, covering a wide interval. In addition, the majority of the participants were married women who had given birth. It is known that childbirth and the breastfeeding process lead to changes in breast structure. Therefore, including individuals with a narrower age range who have not given birth or breastfed in future studies would be more appropriate for achieving more homogeneous and reliable results.

Conclusion

In conclusion, this study found that self-esteem was higher among married women and women with larger breast volume. The higher self-esteem observed in married women may be related to the new social status and perceived empowerment associated with marriage, while larger breast volume may be culturally linked to greater perceptions of femininity. On the other hand, no statistically significant relationship was observed between breast satisfaction (BCS) and breast volume or other sociodemographic characteristics. This may be attributed to the inclusion of only healthy women in the study, resulting in limited variability in body perception and satisfaction.

Key Points:

1. In this study, women with larger breast volume were found to have higher self-esteem, which may be partly explained by cultural perceptions linking larger breasts to greater femininity.
2. Marriage appears to be associated with higher self-esteem, possibly due to the new social status

and perceived empowerment that marriage confers on women within the societal context.

3. No statistically significant relationship was observed between breast satisfaction (BCS) and breast volume or other sociodemographic variables, suggesting that breast satisfaction may be influenced by additional factors beyond physical characteristics and marital status.

Ethical Approval: Ethical approval for this study was obtained from the Ethics Committee of Selçuk University (Date: 27.09.2017 – No: 2017/278).

Conflict of Interest: The authors declare that they have no conflict of interest.

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SCD	Study, Conception and Design	YA, MAE, FGC, RK
AD	Acquisition of Data	YA, MAE
AID	Analysis and Interpretation of Data	YA, FGC, RK
DM	Drafting of Manuscript	YA, FGC
CR	Critical Revision	YA, MAE, FGC, RK
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References:

1. Ömerli A, Ülger H, Hacıaloğulları M, Aycan K. Genç Türk bayanlarında meme hacminin normal değerleri. *Sağlık Bilimleri Dergisi* 2008;17(2):104-9.
2. Girişken Velioğlu E. Meme kanseri hastalarında depresyon, anksiyete ile utanç, suçluluk ilişkisinin değerlendirilmesi. Yüksek lisans tezi. Mustafa Kemal Üniversitesi Tıp Fakültesi, Ruh Sağlığı ve Hastalıkları Anabilim Dalı, 2015.
3. Tunel M, Vural A, Evlice YE, Tamam L. Meme kanserli hastalarda psikiyatrik sorunlar. *Arşiv Kaynak Tarama Dergisi* 2012;21(3):189-219.
4. Ayaz S. Stomalı bireylerde beden imajı ve benlik saygısı. *Türkiye klinikleri J Med Sci* 2008;28(2):154-9.
5. Junqueira ACP, Laus MF, Almeida SS, Costa TMB, da Cunha MCF, Swami V. Psychometric properties of the Breast Size Rating Scale (BSRS) in Brazilian university women. *Body Image* 2019;28:34-8.
6. Swami V, Tran US, Barron D, Afhami R, Aimé A, Almenara CA, et al. The Breast Size Satisfaction Survey (BSSS): Breast size dissatisfaction and its antecedents and outcomes in women from 40 nations. *Body Image* 2020;32:199-217.
7. Avsar DK, Aygıt AC, Benlier E, Top H, Taskınalp O. Anthropometric breast measurement: a study of 385 Turkish female students. *Aesthet Surg J* 2010;30(1):44-50.
8. Huang NS, Quan CL, Mo M, Chen JJ, Yang BL, Huang XY, et al. A prospective study of breast anthropomorphic measurements, volume and ptosis in 605 Asian patients with breast cancer or benign breast disease. *PLoS One* 2017;12(2):e0172122.
9. Kayar R, Çatal H. Büyük meme (makromasti)ler ve meme kanseri. *İzmir Tepecik Eğitim Hastanesi Dergisi* 2007;17(3):121-30.
10. Westreich M. Anthropomorphic measurement of the breast. In: *Breast Augmentation*. (ed) Shiffman MA. Berlin, Heidelberg: Springer. 2009:27-44.
11. Secord PF, Jourard SM. The appraisal of body-cathexis: body-cathexis and the self. *J Consult Psychol* 1953;17(5):343.
12. Hovardaoğlu, S. Body perception scale. *Journal of Psychiatry Psychology Psycho-pharmacology (3P)*. 1992;1(1):26-27.
13. Ucar T, Uzun O. Meme kanserli kadınlarda mastektominin beden algısı, benlik saygısı ve eş uyumu üzerine etkisinin incelenmesi. *Meme Sağlığı Dergisi* 2008; 4(3):162-8.
14. Rosenberg M. *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press. 1965.
15. Çuhadaroğlu F. *Adolesanlarda benlik saygısı*. Yayınlanmamış uzmanlık tezi. Hacettepe Üniversitesi Tıp Fakültesi, Psikiyatri Anabilim Dalı, 1986.
16. Kayar R, Cilengiroğlu ÖV. Breast volume asymmetry value, ratio, and cancer risk. *Breast Cancer: Basic and Clinical Research* 2015;9(9): 87.
17. Karaca E, Beydağ KD. Plastik cerrahi ameliyatı geçirmiş kadınların beden imajı ve benlik saygıları arasındaki ilişki. *Sağlık ve Toplum* 2021;31(2):181-94.
18. Frederick DA, Peplau LA, Lever J. The Barbie mystique: Satisfaction with breast size and shape across the lifespan. *Int J Sex Health* 2008;20(3):200-11.
19. Sel Z, Beydağ KD. Meme kanseri nedeniyle cerrahi operasyon geçiren kadınlarda beden algısı, cinsel yaşam kalitesi ve evlilik uyumu ilişkisi. *Bandırma Onyedi Eylül Üniversitesi Sağlık Bilimleri ve Araştırmaları Dergisi* 2022;4(2):119-27.
20. Swami V, Cavelti S, Taylor D, Tovée MJ. The breast size rating scale: Development and psychometric evaluation. *Body Image* 2015;14:29-38.
21. Hassani F, Koraei A, Yaghoobi R, Zarea K. An evaluating of the relationship between body image, body satisfaction, depression, marital quality, and self-esteem in patients with psoriasis. *Psychol Health Med* 2021;26(4):467-77.

Alıntı Kodu: Alagöz A. ve Ark. Kadınlarda meme hacminin psikolojik ilişkileri: Benlik saygısı ve beden algısı açısından çıkarımlar. *Jour Turk Fam Phy* 2025; 16 (3): 196-207. Doi: 10.15511/tjtfp.25.00396.

22. Di Cara M, Lo Buono V, Corallo F, Cannistraci C, Rifici C, Sessa E, et al. Body image in multiple sclerosis patients: a descriptive review. *J Neurol Sci* 2019;40(5):923-8.
23. Gümüşsoy S, Kavlak O, Dönmez S. Investigation of body image, self-esteem, and quality of life in women with urinary incontinence. *Int J Nurs Pract* 2019;25(5):e12762.
24. Karaaslan Ö, Hacimusalar Y. Evaluation of body image, sexual dysfunctions and quality of life in female patients with generalized anxiety disorder. *Arch Clin Psychiatry (São Paulo)* 2018;45:150-3.
25. Düzgün N, Bayraktar E. Determination of body image, self-esteem and depression states among patients with gynecological cancer. *Turk J Oncol* 2020;35(4):307-14.
26. Turk KE, Yılmaz M. The effect on quality of life and body image of mastectomy among breast cancer survivors. *Eur J Breast Health* 2018;14(4):205-10.
27. Oon IH, Mara JK, Steele JR, McGhee DE, Lewis V, Coltman CE. Women with larger breasts are less satisfied with their breasts: Implications for quality of life and physical activity participation. *Womens Health (Lond)* 2022;18:17455057221109394.
28. Tantleff-Dunn S, Thompson JK. Breast and chest size satisfaction: Relation to overall body image and self-esteem. *Eat Disord* 2000;8(3):241-6.
29. Küçükçolak F. Evlilik durumu ve benlik saygısı ilişkisi: Üniversite öğrencileri üzerine bir çalışma. *Uluslararası Sosyal Araştırmalar Dergisi* 2017;10(50):123-34.
30. Süzer M. Kadınlarda cinsel doyum ile beden algısı ve yeme tutumu arasındaki ilişkinin incelenmesi. Yüksek lisans tezi. İstanbul Gelişim Üniversitesi Lisansüstü Eğitim Enstitüsü, 2022.
31. Spencer L, Fary R, McKenna L, Jacques A, Lalor J, Briffa K. The relationship between breast size and aspects of health and psychological wellbeing in mature-aged women. *Women's Health* 2020;16.
32. Khorshid L, Eşer I, Denat Y, Cinar S. An investigation into the body image of women. *J Human Sci* 2007;4(2):123-35.
33. Pınar R. Obezlerde depresyon, benlik saygısı ve beden imajı: karşılaştırmalı bir çalışma. *C.Ü. Hemşirelik Yüksekokulu Dergisi* 2002;6(1):30-41.
34. Sançar B, Akan N, Süren Akpolat N, İnanc Ş. Examination of body image perception and quality of life of women with segmental or total mastectomy: a cross-sectional study. *BMC Womens Health*. 2025;25(1):342.

Alıntı Kodu: Alagöz A. ve Ark. Kadınlarda meme hacminin psikolojik ilişkileri: Benlik saygısı ve beden algısı açısından çıkarımlar. *Jour Turk Fam Phy* 2025; 16 (3): 196-207. Doi: 10.15511/tjtfp.25.00396.