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The Relationship between Body Image and Sexuality after Surgical Treatment in Women with Breast Cancer

Meme Kanserli Kadınlarda Cerrahi Tedavi Sonrası Beden İmajı ve Cinsellik Arasındaki İlişki

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ABSTRACT

Aim: Surgical treatment of breast cancer has a profound and chronic negative impact on a woman's body image and sexuality. The present study aimed to determine the relationship between body image and sexuality after surgical treatment in women with breast cancer (BC).

Methods: A cross-sectional and descriptive design was used, and the study included a total of 177 women with BC who had the surgical BC treatment. Data were collected using a questionnaire and the Sexual Adjustment and Body Image Scale (SABIS) in the women's homes.

Results: The average age of the women was 48.11 years (from 28 to 64 years). The women's prior body image score was 10.82 and post body image score was 7.39, prior sexual adjustment score was 6.81, sexual functioning score was -3.79, and sexual importance of breasts score was 6.98. The post body image score was positively correlated with three of the SABIS subscales: prior sexual adjustment (r= .201), prior body image (r= .221), and impact on sexual functioning (r= .263) and negatively correlated with sexual importance of breasts (r= -.265). The sexual functioning subscale was positively correlated with post body image (r= .263) and sexual importance of breasts (r= .245). According to the lumpectomy, radical mastectomy was found to be worse in the SABIS body image and sexual adjustment dimension scores. The difference between the education level of the women, the type of surgery, and the stage of cancer and the body image score were significant. In addition, it was determined that there was a statistically significant difference between the subscales of sexual adjustment with age and the sexual significance of the breasts with age, type of surgery, the time after surgical treatment, and the sexual function score of women who have problems with their husband after BC (p<.05).

Conclusion: Surgical treatment of BC has a negative effect on the body image and sexuality of the woman due to the fact that it changes or removes the physical and psychological symbol of femininity. The findings of this study confirm that a mastectomy has a negative impact on sexuality and body image of women.

Keywords: *Breast cancer; body image; sexuality*

ÖZ

Amaç: Meme kanserinin cerrahi tedavisi, bir kadının beden imajı ve cinselliği üzerinde derin ve kronik olumsuz etkiye sahiptir. Bu çalışma, meme kanserli kadınlarda cerrahi tedavi sonrası beden imajı ile cinsellik arasındaki ilişkiyi belirlemek amacı ile yapıldı.

Yöntem: Kesitsel ve tanımlayıcı tasarım kullanılan çalışma, meme kanseri nedeni ile cerrahi tedavi geçirmiş olan toplam 177 meme kanserli kadını içeriyordu. Veriler kadınların evlerinde anket formu ve cinsel uyum ve beden imajı ölçeği (SABIS) kullanılarak toplandı.

Bulgular: Kadınların yaş ortalaması 48.11 (28-64 yıl) idi. Kadınların SABİS'in önceki beden imajı skoru 10.82, sonraki beden imajı skoru 7.39, cinsel uyum skoru 6.81, cinsel fonksiyon skoru -3.79, cinsel meme önem skoru 6.98 olarak belirlendi. Sonraki beden imajı ile SABİS'in üç alt boyutu ile pozitif: önceki beden imajı (r= .221), önceki cinsel uyum (r = .201) ve cinsel işlevsellik (r= .263) ve memelerin cinsel önemi ile (r= -.265) negatif korelasyon gösterdiği bulundu. Cinsel işlevsellik boyutunun, sonraki beden imajı (r= .263) ve memelerin cinsel önemi arasında (r= .245) pozitif korelasyon belirlendi. Radikal mastektomi yapılanların lumpektomi yapılanlara göre, SABIS beden imajı ve cinsel uyum boyutu puanları daha kötü bulundu. Kadınların eğitim düzeyi, ameliyat şekli ve kanser evresi ile beden imajı skorları arasındaki fark anlamlıydı. Ek olarak yaş ile cinsel uyumun tüm boyutları ve yaş, cerrahinin tipi, mastektomi sonrası geçen süre ile memelerin seksüel önemi üzerinde ve meme kanseri sonrası kocası ile sorun yaşayan kadınların seksüel fonksiyon puanları arasındaki fark istatistiksel olarak önemli bulundu (p<.05).

Sonuç: Meme kanserinin cerrahi tedavisi, kadınlığın fiziksel ve psikolojik sembolünü değiştirdiği veya kaldırdığı için kadının beden imajı ve cinselliği üzerinde olumsuz etkiye sahiptir. Bu çalışmanın bulguları mastektominin kadınların cinsellik ve beden imajı üzerinde olumsuz bir etkisi olduğunu doğrulamaktadır.

Anahtar kelimeler: *Meme kanseri; beden imajı; seksualite.*

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The surgical treatment of breast cancer (BC), has a deep and cronic negative impact on body image of a woman and her sexuality[1] because, it alters or removes physical and psychological symbols of femininity. Perhaps most important is the fact that a woman's sexuality encompasses not only the ability to engage in sexual activity, but also feelings about one's own body and ideas about body image and femininity.[2,3] Furthermore, sexuality represents one of the main aspects of the relationship between a woman and her partner, which is affected by mastectomy and thus causes several sexual problems after BC treatment.[4] Scholars have suggested that, women with BC who experienced sexual dysfunction, a reduction in the quality of sexual life,[5] a decrease in feelings of sexual attractivenes,[6] and significant changes in body image because of cancer and its treatment.

In sexuality, barriers can be faced due to difficulty in disclosure and themes may about adjustments made by partner, role of age, and sexual difficulties due to treatment. In a study[7] using qualitative and quantitative designs, seven main themes emerged for women with BC: (1) a decrease in sexual frequency; (2) a lack of sexual interest; (3) menopausal symptoms; (4) body image changes; (5) effects on marital relationship; (6) misconceptions about sex; (7) the need for professional consultation. Scholars have asserted that similarly in adjuvant therapies such as chemotherapy or hormone-based therapies, the risk of temporary or permanent biological losses, and changes such as infertility, loss of libido, weight gain, hair loss, and fatigue also affect sexual functioning and body image of women.[8]

Body image has been reported to have a psychological dimension to cancer experience[9] and it would be exposed to the threat when any probable, or real, change in the function or appearance of the body happens such as mastectomy. Researchers have highlighted these problems should be identified and treated because they affect other areas of life.[10] However, when faced with serious disease such as cancer the health professionals are usually more concerned with assuring survival and restoring physical integrity. Therefore sexuality and body image assessments are not routinely provided in the oncology setting. Also, following a diagnosis of BC, women are primarily concerned with survival and lifestyle changes.

The women's sexual problems and body image need to be assessed more comprehensively using more culturally sensitive items because, each woman's experience is individual and contextual, influenced by a range of factors (e.g., age, illness stage, treatment type(s), relationship status, and others). As in many cultures around the world,[3,4] in Turkish culture,[2,11] female breasts are strongly related to the world of sexuality and physical attractiveness. It is also supported by fashion and media today. Nurses play a cornerstone role in identification of a negative body image and sexual problems in women postmastectomy/lumpectomy and providing biopsychosocial and spiritual care. The aim of the current study was to determine relationship between body image and sexuality after mastectomy/lumpectomy in women with BC group from Turkey.

Methods

Study design

This cross-sectional and descriptive survey was conducted between December 2016 and April 2017.

The study protocol was submitted for approval to the local research ethics committee (2016-10/14) and informed consent was obtained from all participants. The study population included 512 women who had undergone a surgical treatment for BC and enrolled in an university research and practice hospital oncology department. But, the study was carried out with 177 women who had undergone mastectomy/lumpectomy; women who were aged over 65 (135 patients), who did not agree to participate in the study (27 patients), who died during the follow-up period (16 patients), who were unmarried (25 patients), who were male (3 patients), who had no surgical intervention (3 patients), and who could not speak Turkish (2 patients) and 124 patients who could not be reached due to incorrect phone numbers and these patients were also excluded. The study population were being sexually active, being in the 18-65 years age group, being married. The inclusion criteria of the study were (1) women who have undergone mastectomy/lumpectomy (2) women in age group of 18 and above, (3) married women, (4) at least 6-60 months since administration of chemotherapy and radiation therapy, (5) speaking Turkish. The exclusion criteria included (1) women currently undergoing chemotherapy or radiation treatment, (2) women with cognitive impairments, and (3) women with active or distant metastases.

The two instruments were used in this study.

Questionnaire

It was developed by researchers, composed of questions related to personal characteristics of women (age, education level, marital status, employment status, menopausal status), cancer staging, type of surgery, time after surgery (months) and adjuvant therapies (chemotherapy, radiation therapy and hormone therapy), and having a problem with their partners were experienced after diagnosis, was utilized for data.

Sexual Adjustment and Body Image Scala(The SABIS)

Sexual Adjustment and Body Image Scala (SABIS) was developed by Dalton et al.[12] as a brief self-reporting questionnaire to assess body image and sexuality in women with BC following surgery. The SABIS consists of two separate scales: the Body Image Scale and Sexual Adjusment Scale. The six-item Body Scale has two subscale: Prior Body Image (min-max=3-15) and Post Body Image (min-max=3-15). The eight-item Sexual Adjusment Scale has three subscale: Prior Sexual Adjustment (min-max=2-10), Impact on Sexual Functioning

(min-max= -8+8), and Sexual Importance of Breasts (min-max=2-10) (Table 1). Mean scores for the subscales are used for evaluations and a total score for the SABIS is not calculated. Lower scores indicate poor sexual adjustment and poor body image. The validity and reliability of the scale were established by Erol Ursavaş and Karayurt [11] in Turkey (SABIS-Tr). It was determined that women with BC represented a valid and reliable scale for assessing sexual adjustment and body image. The Cronbach's alpha values were .86, .83, and .89 for the subscales of sexual adjustment and .77 and .81 for the subscales of body image. In this study, the Cronbach's alpha values were prior .91, .96, and .91 for the subscales of sexual adjustment and .98 and .97 for the subscales of body image.

Data collection

After obtaining ethics approval from the institutional review committee, women were contacted by telephone two weeks before their home visit; the aim of study was explained and informed consent was obtained from all participants before the interview could be started at home visit between December 2016 and April 2017. The questionnaires and SABIS used in the study were applied by second researcher in the home environment with face-to-face interviews. The interviews lasted for 30 minutes. During the phone call, women did not request information. Therefore, no information was given to women after the interview.

Statistical analyses

Statistical analyses of the data were conducted using the Statistical Package for the Social Sciences SPSS for Windows, version 22.0 (SPSS Inc.; Chicago, IL, USA), and descriptive tests were used for demographic data, average was used for the calculation of scale scores, and Cronbach's alpha coefficient was used to measure reliability. Women characteristics and the SABIS scores were compared using weighted independent student t-tests for normally distributed variables, Kruskal Wallis test and Mann Whitney U test for non normally distributed variables. Significance level was accepted as p<.05.

Results

Characteristics of the women

The sociodemographic and clinical characteristics of the women are presented in Table 1. The women were aged between 28 and 64 years with a mean age of 48.11(SD=7.33) years. The women included in the study, 76.8% were low education, 15.3% were employed, 85.9% had menopause, 57.1% had radical mastectomy, 89.8% received chemotherapy, 79.1% received radiotherapy, and 53.7% received hormonal therapy. Time elapsing after the mastectomy was 45.45 months.

The mean SABIS scores of the women

The mean SABIS prior body image subscale score was 10.82 (SD=2.45), and the post body image subscale score was 7.39 (SD=3.55). The mean prior sexual adjustment score was 6.81

Table 1. Socio-demographic and Clinical Characteristics of Women (n= 177)

Characteristics		n	%
Age, y (Mean age, 48.11; SD=7.33)	28-45	60	33.9
	46-64	117	66.1
Education level	Low (no education, primary education)	136	76.8
	High (college or university)	41	23.2
Employment	Employed	27	15.3
	Nonemployed	150	84.7
The menopause status	Yes	152	85.9
	No	25	14.1
Time after surgery (months)	45.45; SD=37.25		
Type of surgery	Lumbectomy	76	42.9
	Radical mastectomy	101	57.1
Type of therapy*	Surgical treatment	177	100.0
	Chemotherapy	159	89.8
	Radiotherapy	140	79.1
	Hormonal therapy	95	53.7
	Herbal treatment	24	13.6
Cancer stage	Stage I	47	26.6
	Stage II	93	52.5
	Stage III	31	17.5
	Stage IV	6	3.4
Having problems with her spouse after BC	Yes	34	19.2
	No	143	80.8

BC: Breast Cancer; SD: Standart Deviation
*All patients received surgical treatment, patients received chemotherapy, radiotherapy, hormonal therapy or herbal therapy after surgical treatment.

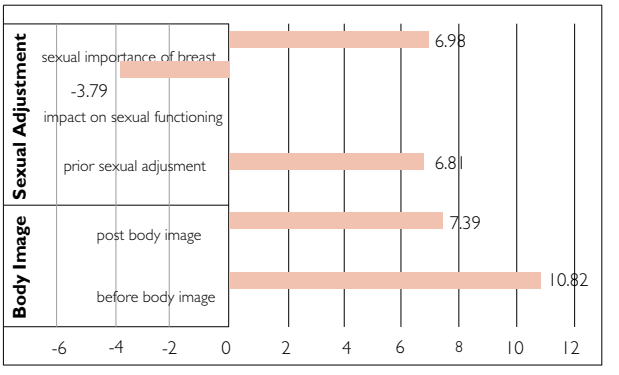


Figure 1. The mean SABIS scores of the women

Table 2. Comparisions of Socio-demographic and Clinical Characteristics of Women and Sexual Adjustment and Body Image Mean Scores

Characteristics	SABIS				
	Body image		Sexual adjustment		
	Before body image	Post body image	Prior sexual adjustment	Impact on sexual functioning	Sexual important of breasts
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Age					
28-45	11.15 (2.52)	6.85(3.48)	7.20(1.43)	-4.66(3.23)	7.51(2.38)
46 and over	10.65 (2.40)	7.67(3.56)	6.60(1.49)	-3.35(3.20)	6.70(2.17)
t-test/p	1.268/p=.206	-1.469/p=.144	2.537/p=.012*	-2.578/p=.012*	2.289/p=.023*
Education level					
Low	10.66 (2.54)	7.04(3.35)	6.64(1.53)	-3.66(3.40)	7.02(2.29)
High	11.36 (2.02)	8.56(3.94)	7.34(1.23)	-4.21(2.76)	6.80(2.20)
t-test/p	-1.623/p=.106	-2.431/p=.016*	-2.651/p=.009**	.945/p=.346	.554/p=.580
Employment status					
Employed	11.48 (2.12)	8.70(3.37)	7.18(1.24)	-3.59(3.21)	6.00(1.66)
Nonemployed	10.70 (2.49)	7.16(3.54)	6.74(1.53)	-3.83(3.28)	7.15(2.32)
t-test/p	1.520/p=.130	2.100/p=.037*	1.428/p=.155	.352/p=.726	-2.464/p=.015*
The menopause status					
Yes	10.84 (2.54)	7.32(3.55)	6.76(1.54)	-3.81(3.24)	7.01(2.21)
No	10.68 (1.77)	7.80(3.59)	7.04(1.13)	-3.72(3.49)	6.76(2.6)
t-test/p	.319/p=.750	-.614/p=.540	-.837/p=.404	-.126/p=.900	.515/p=.607
Type of surgery					
Lumbectomy	10.22 (2.34)	8.92(3.14)	6.73(1.24)	-3.37(3.13)	6.55(1.99)
Radical mastectomy	11.27 (2.43)	6.24(3.41)	6.86(1.66)	-4.11(3.34)	7.29(2.41)
t-test/p	-2.895/p=.004**	5.331/p=.001**	-0.547/p=.585	1.518/p=.131	-2.181/p=.030*
Time after surgical treatment					
6-12 months	10.62 (2.41)	6.94 (3.34)	7.16 (1.70)	-3.83 (3.27)	7.86 (1.84)
13-36 months	11.16 (2.31)	7.51 (3.73)	6.83 (1.47)	-4.01 (3.37)	6.52 (2.30)
37 months and over	10.62 (2.57)	7.54 (3.51)	6.61 (1.38)	-3.83 (3.27)	7.86 (1.84)
KW/p	1.562/p=.458	.695/p=.706	4.313/p=.116	.565/p=.754	7.941/p=.019*
Chemotherapy					
Yes	10.91 (2.47)	7.28 (3.58)	6.89 (1.50)	-3.94 (3.28)	6.89 (2.33)
No	10.00 (2.05)	8.38 (3.18)	6.00 (1.19)	-2.44 (3.11)	7.78 (1.48)
Z-test/p	-1.703/p=.089	-1.204/p=.228	-2.662/p=.008**	-1.89/p=.058	-1.48/p=.139
Radiotherapy					
Yes	10.99 (2.45)	7.57 (3.55)	6.76 (1.48)	-3.92 (3.25)	6.90 (2.34)
No	10.18 (2.35)	6.72 (3.50)	6.97 (1.55)	-3.29 (3.30)	7.24 (1.98)
t-test/p	1.788/p=.076	1.285/p=.201	-0.754/p=.452	0.489/p=.297	-0.800/p=.425
Hormone therapy					
Yes	10.70 (2.48)	7.25 (3.35)	6.69 (1.42)	-4.07 (3.33)	6.89 (2.09)
No	10.96 (2.41)	7.56 (3.77)	6.93 (1.57)	-3.47 (3.17)	7.07 (2.47)
t-test/p	-.699/p=.496	-.575/p=.566	-1.084/p=.280	-1.216/p=.226	-.520/p=.604
Cancer stage					
Stage I	10.46 (2.08)	9.02 (3.37)	6.87 (1.29)	-3.62 (3.43)	6.70 (1.68)
Stage II	11.14 (2.55)	6.77 (3.39)	6.68 (1.55)	-3.72 (3.34)	6.92 (2.48)
Stage III	10.22 (2.52)	6.19 (3.20)	6.93 (1.57)	-4.35 (2.75)	7.74 (2.31)
Stage IV	11.83 (2.48)	10.50 (3.56)	7.50 (1.76)	-3.50 (3.78)	6.00 (2.19)
F/p	1.832/p=.143	7.748/ p=.001**	.728/p=.536	.378/p=.769	1.813/p=.147
Having problems with her spouse after BC					
Yes	10.67 (2.69)	6.47 (3.83)	6.55 (6.86)	-5.05 (2.91)	7.11 (2.22)
No	10.86 (2.39)	7.61 (3.45)	6.86 (1.38)	-3.49 (3.28)	6.94 (2.28)
t-test/p	-.392/p=.695	-1.699/p=.091	-1.081/p=.281	-2.545/p=.008**	.40/p=.690

SABIS: Sexual Adjustment and Body Image Scala BC: Breast Cancer; SD: Standart Deviation

*p value is significant at the 0.05 level, ** p value is significant at the 0.01 level

Table 3. The Correlations Between Sexual Adjustment and Body Image of Women

Sabis Subscales		Sabis Subscales				
		Prior Body Image	Post Body Image	Prior Sexual Adjustment	Impact on Sexual Functioning	Sexual Importance of Breasts
Prior Body Image		1				
Post Body Image	r	.221	1			
	p	.003**				
Prior Sexual Adjustment	r	.365	.201	1		
	p	.001**	.007**			
Impact on Sexual Functioning	r	-.171	.263	-.205	1	
	p	.02*	.001**	.006**		
Sexual Importance of Breasts	r	.169	-.265	.158	.245	1
	p	.02*	.001**	.03*	.001**	

*Correlation is significant at the 0.05 level, ** Correlation is significant at the 0.01 level

(SD=1.49), the impact on the mean sexual functioning score was -3.79 (SD=3.26), and the mean sexual breast importance score was 6.98 (SD=2.27). The mean SABIS scores of the women are shown in figure1.

Body image and sexual adjustment score of women

As shown in Table 2 it was determined that post body image score was higher in those with higher education levels and who had lumpectomy. In study, in women with aged 28-45 both prior sexual adjustment score and impact on sexual functioning score was higher. In addition, the sexual significance score of the breasts was bad in women who had problems with their partners after being diagnosed with BC (p>.05), who had undergone radical mastectomy, who past for at least 37 months after surgery, and women between 28-45 years of age and the difference between the groups was statistically significant women who have problems with their partners after being diagnosed with BC (p<.05).

Relationship between body image and sexual adjustment of women

It was determined that post body image was positively correlated with prior sexual adjustment (r= .201, p<.01), prior body image (r= .221, p<.01) and impact on sexual functioning (r=.263, p<.01) and negatively correlated with sexual importance of breasts (r=-.265, p<.01). Impact on sexual functioning was positively correlated with post body image (r=.263, p<.01) and sexual importance of breasts (r= .245, p<.01) (Table 3).

Discussion

International reports suggest that the physical and functional changes due to the traumatic nature of BC diagnosis and its treatment dramatically disturbances a woman's body and previous level of sexual functioning, regardless of ethnicity many countries in the Worldwide.[8,13,14] Because, the treatment of BC is always an assault on body and mind.

The present study, found that women had significantly disturbed body image post- mastectomy compared to before mastectomy and women were moderately comfortable with their body images, the women's post-mastectomy body image score was moderate level (Mean=7.39). This finding is consistent with previous researches that reported significant changes in body image after diagnosis and treatment for BC.[2,15,16] In a study body image problems have been found to be associated with mastectomy, hair loss from chemotherapy, alterations in weight, low self-esteem, and the partner having difficulty understanding the feelings of the woman.[17] In other studies found that 88.2% [6] of women were dissatisfied with the appearance of their bodies; 37% of the women reported that they felt unpleasantly for their breasts, 29% was not satisfied with their breast appearance and 21% felt embarrassed for their naked body.[18] Moreover, studies conducted in various countries has shown women covered their body during intimate contact[19] and they thought their bodies got ugly with cancer.[3,6,8,20] Removal of the breast can cause body stigma due to the loss of bodily integrity due to alteration of the body.[21] Especially, it is further complicated due to stigma often attached to the loss of a breast in a culture where sexuality is generally repressed. In current study women said "I feel half myself" during interview. This statement by women also show that they are intensively experiencing body stigma.

It is emphasized by scholars that the negative body image is one of the important factors that negatively affects sexual life of women.[6,8,10,22] Also, Fang et al.[22] have been reported there is a relationship between body image and sexuality, and that there are more sexual problems in people with poor body image. In current study mean scores on prior sexual adjustment indicated that women were moderately satisfied with their sexual life preBC, but that their sexual adjustment worsened (Mean=-3.79) following mastectomy/lumpectomy. This finding is consistent with the findings of many studies that women have experienced

sexual dysfunction due to BC treatment.[23-26] Sexual health is an area of concern consistently identified by women after treatment for BC.[27] The results of some studies have shown that approximately 71% of women experience a decrease in sexual activity,[18] following BC and decreased sexual satisfaction.[3] In this study women state that "I don't take off my upper clothes during sexual intercourse." Sexual health and body image may be adversely affected by direct anatomical changes such as a mastectomy for BC.[27] In addition, it is reported that there are more sexual problems in people with poor body image.[22]

In the present study, it was determined that body image score in the women who had a radical mastectomy was lower than who had a lumpectomy. This finding was consistent with emerging evidence from other studies.[5,11,28] In this study, it was determined that body image, and sexual function were negatively affected after chemotherapy, hormonal, and radiotherapy treatment. In another study made women with BC,[29] body image was found to be negatively associated after adjuvant radiotherapy and/or chemotherapy. These results can be interpreted as both of them is causing loss of hair and breast regarded by society and her partner as symbols of a woman's femininity. As is known, long flowing hair represents femininity and attractiveness. Therefore, the loss of hair is often experienced more negatively than the loss of a breast, because of considering hair as an integral in the sense of identity and its loss representing a visible reminder of cancer[30] and thus changes in physical appearance cause negatively body image in women.[31]

This study identified that the sexual importance of breasts score women were above the middle-level (Mean=6.98). And the study women said: "I do not want to look at my breasts" during interview. In other studies in Turkey.[2,12] also revealed that the sexual importance of breasts score was similar to the findings of the present study.

For women, it is important how they appear to others, especially how they appear to their partners. Therefore the partner plays an important role in the struggle against BC and it is an important determinant of the sexual health and adaptation to the disease of women's with BC. In the present study, it was determined that the majority of women did not have problems with their partners. However, the sexual function of those who have problems with the partner is adversely affected and they had high score for the breast of the importance of sexuality. In a study[32] has been found that mastectomy negatively affects body image, self-esteem, and compliance of the partner. In the studies, the body image and the problems associated with the partner after the mastectomy have a negative impact on sexual function[14,19,22,33] so, it is considered as a couple's disease.[5,22] The problems experienced after the diagnosis of BC may lead to conflicts, threats, and difficulties between some partners while bringing together some partners and strengthening their relationship,[5,34] due to changes in the patient/caregiver role of partners and threats to established sexual roles and sexual interest.[22] In a previous study[19] found that surgery, 33% of women had a direct negative impact on partnership relations. In qualitative research[35] women's partners explained that a naked body that is scarred by mastectomy or hairless head caused unpleasant emotions such as stress and anxiety in their marriage and feelings of pity about their wives and they did not think their wives sexually. It is suggested that the future studies should be conducted with larger groups and that the partners should be included.

In present study determined that women 6-12 month time after mastectomy both body image and sexual adjustment score was low. Studies show that women with BC experience sexual problems soon after treatment, and it continues in follow-up. The impact of BC on identity as fear of losing one's breast in the women was common and maximal in first days following mastectomy. Another concern expressed by cancer survivor was the comment by partner about her breast shape. In a previous study[36] showed that women with BC seem to experience significant issues in sexual functioning 3 months after surgery.

In current study sexual important of breast and impact on sexual functioning score of young women (28-45 age) were found high. In studies, 68-70% of patients in all ages were found to have at least one sexual dysfunction.[37,38] Among the most detrimental to sexual function, are the use of chemotherapy and endocrine therapy. In the studies, it was found that most of the women with BC receiving chemotherapy[39] and those receiving endocrine treatment at a young age.[26] were the most important factors contributing to post-treatment sexual dysfunction. It can be suggested that prevention and intervention strategies should be planned and implemented in order to reduce the problems of sexual changes and body image experienced after surgical treatment of BC as depends on each woman's characteristics and the needs.

Study limitations

There are some limitations to the present study. The first limitation is the study population was gathered from a single center, therefore the results are not generalizable to all women with mastectomy/lumpectomy. Secondly, women's partner is not included in the study, so it is suggested that the future studies should be conducted with larger groups and that the spouses should be included.

Conclusion

Body image is a concept that is part of the overall sexual health, and this is considered one of the aspects of health for any individual. Results of this study showed that, surgical treatment of BC has a negative effect on the body image and sexuality of the woman due to the fact that it changes or removes the physical and psychological symbol of femininity. The findings of this study confirm that mastectomy has a negative impact on sexuality and body image of women.

Etik Komite Onayı: Bu çalışma için etik komite onayı, Sivas Cumhuriyet Üniversitesi Etik Kurulu'ndan alınmıştır (Tarih ve No: 2016-10/14).	**Ethics Committee Approval:** Ethics committee approval was received for this study from the Sivas Cumhuriyet University (date and number: 2016-10/14).
Bilgilendirilmiş Onam: Çalışmaya katılan hastalardan sözel ve yazılı izin alınmıştır.	**Informed Consent:** Verbal and written informed consent was obtained from women who who participated in this study.
Hakem Değerlendirmesi: Dış bağımsız.	**Peer-review:** Externally peer-reviewed.
Çıkar Çatışması: Yazarlar çıkar çatışması olmadığını belirtmişlerdir.	**Conflict of Interest:** No conflict of interest was declared by the authors.
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