Original Research

Evaluation Of Sexual Self-Efficacy And Subjective Body Image After Mastectomy And Lampectomy In Women With Breast Cancer

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Abstract:

Background: Breast cancer accounts for 23% of all cancers in women and is the leading cause of death among women aged 20 to 59 worldwide. Because the breast is an important part of a woman's body image, any abnormality can lead to a negative body image as well as negative sexual self-efficacy in women. The aim of this study was to evaluate the level of sexual self-efficacy and image of the body after mastectomy and lumpectomy in Shahroud city and Golestan province.

Method: This is a cross-sectional descriptive-analytical study. The study population was women with breast cancer undergoing mastectomy and lumpectomy in Shahroud and Gorgan. From both groups (mastectomy and lumpectomy), 57 Patients were selected by convenience sampling method. Demographic information questionnaire, sexual self-efficacy questionnaire and body image questionnaire were used to collect data. Data were analyzed using SPSS statistical software. Quantitative variables were first evaluated for normality using the Spirovilk test, and in cases where the quantitative variable and distribution were normal, the independent t-test was used, and in case of abnormality, the Mann-Whitney test was used.

Results: The research units were in the age range of 15 to 75 years and with an average age of 48 years. The results showed that there was no significant relationship between the mean score of mastectomy 0.103 and sexual self-efficacy (P = 0.200) and lumpectomy 0.165 and sexual self-efficacy (P = 0.200). Also, there was no significant relationship between the mean score of mastectomy 21.6765 and mental image of the body (P = 0.200) and lumpectomy 25.0000 and mental image of body (P = 0.200).

Conclusion: The results of this study show that there is no significant difference between the two groups in the variables of sexual self-efficacy and mental image of the body. There is a need for further investigation according to other variables.

Keywords: Body image, Lumpectomy, Mastectomy, Sexual Self-Efficacy.

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Introduction

Cancer is a disease caused by an abnormal expression of a gene (1). Cancer is the second leading cause of death in developed countries and the fourth one in developing countries (2). The awareness of having cancer is a surprising experience for everyone (3).The key to successful cancer treatment is rapid and accurate diagnosis. For this purpose, the need for effective diagnostic and therapeutic methods is well felt. Current methods of cancer treatment are mainly limited to surgery, chemotherapy and radiation therapy. Mastectomy and lumpectomy are two common surgeries in breast cancer (4). 81% of surgeries are for mastectomy cancer treatment. Lamectomy is also called breast preservation or breast protection surgery because, unlike mastectomy, only part of the breast is removed (5). Because the breast is an important part of a woman's body image, any abnormality causes a negative body image in women, which will lead to the idea of the end of femininity in the individual(6). Such a person avoids having intimate relationships with other Patients and may even avoid taking a bath because of a defect in his body (7). Depending on the amount of change that occurs in a woman's body, her psychological and social problems will also be different (8). Women experience a great deal of stress and are more likely to develop abnormalities: Depression, anxiety and poor quality of life (9). Breast cancer, including mastectomy for the mood and quality of life of patients, is on the rise. In many cases, breast loss is interpreted as the loss of female identity and causes sexual dysfunction, sexual arousal disorders, hydration, orgasm, libido and sexual pleasure, fear of infertility, negative body image, Feelings of sexual unattractiveness, loss of femininity, anxiety and depression, as well as changes in sexual self-confidence and decreased sexual desire, decreased arousal and failure to reach orgasm (10). On the other hand, research has shown that Patients with sexual problems tend to have low self-esteem, anxiety and worry more, are depressed, have sex that affects their ability to predict failure, have low well-being, and have unpleasant experiences (11). Loss of the breast causes many problems for women and damages their sexual health (12). Studies have shown that in different countries, women with breast cancer feel that their sexual function has changed due to the disease and its treatment (13). Following changes in the physical and mental level, the patient's social relationships and intimate interactions with others are changed and the patient feels disrupted in his family and social life(4). Evaluation of sexual self-efficacy plays an important role in the evaluation of the course of treatment and is considered as an important consequence in diseases, deaths, research and treatment and can provide valuable information that is far from the view of physicians(6). Ultimately, it leads to a change in the way of treatment and to the improvement of the quality of life of the individual (9-10) Mastectomy and lumpectomy patients experience problems with body image because surgery creates the feeling that the patient has lost "everything" or because of the negative reaction of their spouses(6).Come on. Such evidence suggests that physical imbalance and marital satisfaction are related to each other, in particular, spouses hate the effects of wounds or surgery and a decrease in marital satisfaction is predicted in them (7). Body image and self-esteem are important elements in the quality of life of cancer patients. There is still no exact meaning to body image, most of the recent views that have emerged in the mainstream of body image literature include this multidimensional structure that incorporates cognitive, emotional, and behavioral elements. Evidence suggests that body image plays an important role in the mental function of breast cancer patients, for example, Peel and Wintrod showed that patients who have better feelings about their bodies have stronger beliefs about their ability to cope with the disease and they have a cure for it. In addition, research on factors that can affect the body image of breast cancer patients is insufficient (14-15). Women who had an unfavorable mental image of their

bodies experienced low self-esteem and poor psychological adjustment to their environment, which delayed the progress of their treatment. The results of a study show that women whose breasts are preserved have a better mental image (16). The results of a 2007 study in Sweden of 76 women with cancer by Faljbork et al. Show that body image aspects decreased after breast mastectomy following breast cancer (17). Rumi et al. On 64 women with breast cancer show decreased sexual function and satisfaction after mastectomy, body image and quality of life in women with breast cancer and healthy women in 2014 in Mashhad by Bagheri The impact of mastectomy on quality of life and body image among survivors of breast cancer in Turkey in 2016 by Overturehan Turk et al was also very high (18). The mental image of the body is one of the important dimensions of self-appearance and self-esteem at this time and includes not only physical, emotional, social and attitudinal perception, but also various aspects of psychological, social, sexual, family and adaptive identity (19) Accordingly, one's perception of oneself and others' perception of them is due to the effects of cultural values(20).Study of women with breast cancer can help to better understand and improve the health of patients. Since the goal of breast cancer treatment methods is to create a good quality of life for the patient, in order to achieve this important goal, concerns about the impact surgical treatments for breast cancer, especially mastectomy, are increasing the quality of life of patients. Therefore, the present study aimed to determine sexual self-efficacy and mental image of the body in two groups of women with breast cancer undergoing mastectomy and lumpectomy.

Methods

According to its purpose, this research was a cross-sectional descriptive-analytical applied research. The statistical population of the study included all women with breast cancer undergoing mastectomy and lumpectomy in Shahroud and Gorgan. Confidence 0.95 and d = 0.15 Based on Cochran's formula, 57 Patients were selected by available sampling to participate in the study(21). Criteria for inclusion in the study were: definite risk of breast cancer and surgery with one of the mastectomy and lumpectomy methods, at least two weeks after surgery, age conditions 15-75 and having informed consent to participate in the study. Exclusion criteria were: severe cases of depression or other psychiatric disorders affecting the outcome of the study and a history of other cancers. After obtaining permission from the ethics committee of Sabzevar University of Medical Sciences, the researcher was present in the sampling environment, after introducing himself to the head nurse of the chemotherapy department, he started sampling in an available method. Thus, the total number of subjects was 57, of which 27 were from Shahroud city and 30 were from Golestan province. In this study, if a person was illiterate or had little education, all the questionnaires were read or explained to him. On the day of the referral, the patients were given the necessary explanations about the purpose of the study and the method of doing the work, and their consent to participate in the project was announced. All women were informed of the purpose of the study, written permission was obtained from all women, and forms were given to those who agreed to participate in the study. They were also told that participation was voluntary and that they could leave the study at any time. They were also assured that the information contained in the questionnaires was confidential and that all data would be stored securely and accessible only to members of the research team. To assess sexual self-efficacy, Vaziri and Lotfi Kashani questionnaire, which was made in 2013 and includes 10 questions to assess sexual self-efficacy, was used. The questions are scored based on a range of four options from zero to three. The whole is obtained. The reliability of this questionnaire has been reported using Cronbach's alpha measurement method 0.86 Spearman-Brown halving 0.811 and Guttman method 0.81. Also, the estimation of the validity of the sexual self-efficacy questionnaire in Iran using the

content-dependent validity method has been confirmed(22). The body-self multidimensional relationship questionnaire developed by Kash (1990) was used to assess body image. This questionnaire is a 46-item test. Test questions include six dimensions of body-self relationships: face evaluation, face orientation, fitness evaluation, fitness orientation, mental weight, and physical satisfaction on a 5-point Likert scale (1 = completely opposite to 5 = completely Agree) measures. Cache (1990) reported the internal consistency of the subscales between 0.79 and 0.94. In Sadeghi, Gharaie, Fati and Mazhari studies, the reliability of subscales was reported to be between 0.69 and 0.89. In the Persian form of this questionnaire, Cronbach's alpha coefficient for the face evaluation subscale was 0.88, face orientation was 0.85, fitness evaluation was 0.83, fitness orientation was 0.79, mental weight was 0.91 and physical satisfaction was 0.94. Obtained. Also, the reliability of the test-retest with a two-week interval for the face evaluation subscale was 0.78 and the face orientation was 0.75, the fitness evaluation was 0.71, the fitness orientation was 0.69, the mental weight was 0.84 and the physical satisfaction was 0.89 (23). Has been obtained. Data were analyzed using SPSS statistical software. Quantitative variables were described as mean (standard deviation) and qualitative variables as number (percentage). Quantitative variables were first examined for normality using the Spirovilk test and independent t-test was used to test the hypotheses.

Results

The descriptive findings of the study showed that the mean age of Patients who underwent mastectomy was 48.9737 and the standard deviation was 9.8170 and also the mean age of Patients who underwent lumpectomy was 47.3889 and had a standard deviation of 17246/17. There were 9. In terms of education level of research units, among those who underwent mastectomy, the highest frequency was related to primary and lower education (34.2%) and the lowest frequency was related to secondary education with 18.4%. Also, among those who underwent lumpectomy, the highest frequency was related to high school education (52.6%) and the lowest frequency was related to primary and lower education and middle school with 10.5%. Shapirovik test was used to evaluate the normality of the research variables. Considering the level of significance (P = 0.200), it can be said that the research variables have a normal status (P <0.05). Considering the level of significance (P = 0.200) and the rate of standard deviation in mastectomy patients (S.D = 7.60), it can be said that the rate of self-efficacy in mastectomy patients was not significant (P <0.05). Also, considering the level of significance (P = 0.200) and the rate of standard deviation of lumpectomy subjects (S.D = 9.50), it can be said that the level of self-efficacy in lumpectomy subjects was not significant (P <0.05).

Considering the level of significance (P = 0.200) and the rate of standard deviation in mastectomy patients (S.D = 6.60), it can be said that the amount of mental image of iodine in mastectomy patients was not significant (P <0.05). Also, considering the level of significance (P = 0.200) and the rate of standard deviation of lumpectomy subjects (S.D = 7.15), it can be said that the mental image of the body in lumpectomy subjects was not significant (P <0.05).

Discussion

According to the results, there was no significant relationship between mastectomy patients and lumpectomy patients in terms of the level of sexual self-efficacy.

The differences in the results of mentioned studies are related to various factors, such as time of the study (presence or absence of an infectious pandemic), statistical population (number of samples), and different cultural and social conditions (when the cultural and social conditions differ from one village to another or larger society in a country). Therefore, these differences can affect the results of these studies, and also when comparison is made between the results of similar studies in different countries, these differences increase. Also, the living

conditions (living in a city or village), receiving support from family members, and other factors such as having a job, physical activities, family relationships, relationships with friends, studying, working in cyberspace and maintaining financial independence may be some of the reasons for these differences.

Since breast cancer targets a woman's identity, it creates severe psychological effects for the patient and her family. The diagnosis of this disease and the stages of treatment many also affect physical, psychological, familial, social and economic aspects of patient's life (24). Also, due to the important role that breasts has in women's sexuality, their reaction to a real or suspected breast cancer may manifest itself in the form of fear of deformity, loss of sexual attraction, distance from sexual partner and death (25). In a descriptive study, Bokweren et al. (2016) examined 783 women recovered from breast cancer, who were sexually active in terms of sexual function and body image problems, and concluded that problems of sexual function have a high prevalence in groups that were dissatisfied with their body image (26).

According to the results of this study, there was no significant relationship between sexual self-efficacy, mastectomy and lumpectomy. There was also no significant relationship between mental image of the body, mastectomy and lumpectomy. Results of a study by Bagheri et al. (2014) showed a significant difference between healthy women and women with cancer in terms of quality of life and body image. Also, a higher body score in cancer patients was associated with a higher quality of life (18). The study of Molvi et al. (2012) showed that mastectomy had a significant effect on couples' sexual satisfaction compared to lumpectomy (16). Results of another study by Falbjörk and colleagues showed that it is important for health care professionals to be aware of problems related to sexual intimacy. They should provide patients with information about sexual intimacy and be aware of expectations and realities that accompany women. Mastectomy increases vulnerability and reduces self-esteem (17). Results of a study by Erturhan Turk and colleagues showed that mastectomy has a negative effect on the body image and quality of life of women, and there is a strong correlation between body image and quality of life (19). Another study by Koçan et al. (2016) showed that mastectomy, as a surgical treatment for breast cancer, may have a negative effect on women's body image and self-concept (8). Training programs improve the quality of nursing care and reduce anxiety (27). Self-efficacy increases the quality of life and improves health (28). Therefore, it seems that the different results of this study with other studies are due to Patients' culture, which makes them better able to cope with the disease over time. It also seems that in this study, time is a variable that contributes to the lack of difference between the two groups. Bloom and colleagues as well as Hartel in their studies showed that body image improves over time, and it seems that in this study, the passage of time has contributed to the lack of differences between the two groups in terms of body image(7,8). Despite this, most patients focus on the disease itself and finding a cure. Paying attention to the psychological dimensions of health plays an important role in improving the lifestyle and improving the health of patients and caregivers (29-34). In general, social support and empowerment play an important role in improving the quality of care.

Conclusion

The results of this study show that there is no significant difference between the two groups in the variables of sexual self-efficacy and mental image of the body. There is a need for further investigation according to other variables.

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References

1. Paryab S, Hojati H, Hekmatipour N. The Effect of Johnson Behavioral Theory on the Self-efficacy of Mothers of Children with Cancer. Pajouhan Sci J 2022; 20 (2) :87-94
2. Negar Ranjbar Hajabadi , Roya Ebrahimi , Sakine Farhadi , Hojjati Hamid , Mahboubeh Tabrsa. (2020). The Relationship between Frequency of Prayer and Death Anxiety in Cancer Patients. Indian Journal of Forensic Medicine & Toxicology, 14(3), 2163–2167.
3. Hekmati Pour N, Hojjati H. The relationship between praying and life expectancy in cancerous patients. J Med Life. 2015;8(Spec Iss 4):60-64.
4. Wang MD, Shin DM, Simons JW, Nie S. Nanotechnology for targeted cancer therapy. Expert review of anticancer therapy. 2007;7(6):833-7.
5. Fazel A, Tirgari B, Mokhber N, Koushyar M, Esmaily H. The effect of mastectomy on mood and quality of life in breast cancer patients. SSU_Journals. 2008;16(3):317-.
6. Barrio AV, Morrow M. Appropriate margin for lumpectomy excision of invasive breast cancer. Chin Clin Oncol. 2016 Jun;5(3):35.
7. Morales-Sánchez L, Luque-Ribelles V, Gil-Olarte P, Ruiz-González P, Guil R. Enhancing Self-Esteem and Body Image of Breast Cancer Women through Interventions: A Systematic Review. Int J Environ Res Public Health. 2021 Feb 9;18(4):1640. PMID: 33572137; PMCID: PMC7914971.
8. Koçan S, Gürsoy A. Body image of women with breast cancer after mastectomy: a qualitative research. The journal of breast health. 2016;12(4):145.
9. Che Ya SN, Muhamad R, Mohd Zain N, Zakaria R, Ishak A, Hassan II, Ab Hadi I, Yahya MM, Low WY, Liamputtong P. Coping Strategies for Sexual Problems and Sexual Dysfunction Amongst Malay Women With Breast Cancer. A Qualitative Study. Sex Med. 2021 Jun;9(3):100336.
10. Coughlin SS, Ayyala DN, Cortes JE. Problems in living among breast cancer survivors. Curr Cancer Rep. 2021 Jun 15;3(1):101-109.
11. Vegunta S, Kuhle CL, Vencill JA, Lucas PH, Mussallem DM. Sexual Health after a Breast Cancer Diagnosis: Addressing a Forgotten Aspect of Survivorship. J Clin Med. 2022 Nov 14;11(22):6723.
12. Chang YC, Chang SR, Chiu SC. Sexual Problems of Patients With Breast Cancer After Treatment: A Systematic Review. Cancer Nurs. 2019 Sep/Oct;42(5):418-425.
13. Taylor S, Harley C, Ziegler L, Brown J, Velikova G. Interventions for sexual problems following treatment for breast cancer: a systematic review. Breast Cancer Res Treat. 2011 Dec;130(3):711-24.
14. Aghakhani N, Eghtedar S, Sharif nia S H, Hojjati H, Arazi S. Psychological Status of Students of Urmia University of MedicalSciences. JHC 2012; 14 (4)
15. Kowalczyk R, Nowosielski K, Cedrych I, Krzystanek M, Glogowska I, Streb J, Kucharz J, Lew-Starowicz Z. Factors Affecting Sexual Function and Body Image of Early-Stage Breast Cancer Survivors in Poland: A Short-Term Observation. Clin Breast Cancer. 2019 Feb;19(1):e30-e39.
16. Molavi A, Hekmat K, Afshari P, Hoseini M. Evaluation of couples' sexual function and satisfaction after mastectomy. The Iranian Journal of Obstetrics, Gynecology and Infertility. 2015;17(134):17-24.
17. Fallbjörk U, Rasmussen BH, Karlsson S, Salander P. Aspects of body image after mastectomy due to breast cancer–A two-year follow-up study. European Journal of Oncology Nursing. 2013;17(3):340-5.
18. Bagheri M, Mazaheri M. Body image and quality of life in female patients with breast cancer and healthy women. Journal of Midwifery and Reproductive Health.

2015;3(1):285-92.
19. Türk KE, Yılmaz M. The effect on quality of life and body image of mastectomy among breast cancer survivors. European journal of breast health. 2018;14(4):205.
20. Nik-Farjam F, Hojjati H. The Relationship between Mobile Phone Dependency and Social Skills of Students in Gonbad Kavoush. 3 2019; 10 (2) :77-86
21. Jamali M. Feiz Abadi S. Jamali M. The effect of cognitive behavioral intervention on women's sexual self-efficacy and marital satisfaction. Journal of Fundamentals of Mental Health. 2017;19(special issue):29-38.
22. Vaziri SH. Lotfi Kashani F. Hosseinian S. Bahram Ghafari S. Sexual efficacy and marital satisfaction. Journal of Thought & Behavior in Clinical Psychology. 2010; 4(16):75-81.
23. Sadeghi R KA. Akbari ME. Kouhsarian M. Kalhornia Golkar M. Body image and self-esteem: Comparison of two groups of women with breast cancer; Iranian Journal of Breast Diseases. 2012; 5(3): 17-29.
24. Esfandiari Z JA, Asli Azad M. A comparison of body image, marital satisfaction, and public health among breast cancer patients with breast evacuation, breast keeping and normal Patients in Tehran. Journal of health research in community 2015; 1(2):63-71.
25. Carroll AJ, Baron SR, Carroll RA. Couple-based treatment for sexual problems following breast cancer: A review and synthesis of the literature. Support Care Cancer. 2016 Aug;24(8):3651-9.
26. Boquiren VM EM, Wong J, Toner B, Warner E, Malik N. Sexual functioning in breast cancer survivors experiencing body image disturbance. Psycho- Oncology 2016; 25(1):66-76.
27. Motahari niya H, Hojjati H. The influence of education on anxiety in mothers of children with surgery. JPEN 2019; 5 (4) :49-55
28. Rafizadeh-Gharehtapeh S, Aloostani S, Razavi M, Hojjati H. Relationship between the self- care with self-efficacy of the diabetic patient's type 2 referred to Gorgan city clinic 2014. 3 2019; 10 (1) :25-32
29. Hojjati H, Salmasi E, Gorbani M, Hejazi S H, Fesharaki M, Mohamad nejad E. A Survey of the important causes of using alcohol among. Nursing and Midwifery Journal 2010; 8 (1)
30. hojjati H, Koochaki G, Sanagoo A. The Relationship between Loneliness and Life Satisfaction of the Elderly in Gorgan and Gonbad Cities. J Res Dev Nurs Midw 2012; 9 (1) :61-68
31. Tabatabayi H, Ghabimi M, Khajeh-Mirzaee F, Asadi-Nejad H, Hekmati-Pour N, Sheykh-Nejad F. The correlation between believing in resurrection and attitudes toward death among elderly Patients. 3 2022; 12 (2) :27-36
32. Kafaween H M, Nahar L A, Gsous R, Alsakarneh D, Gsous G, Jreisat D. Biological features of breast carcinoma in postmenopausal women. Int J Med Invest 2015; 4 (3) :329-332
33. Pourfard H A R, Haghbeen M, Taheri L, Abiri S, Ghaedi M. A Systematic Review Of Non-Pharmacological/Complementary Methods Of Chemotherapy-Induced Nausea And Vomiting Prevention In Breast Cancer Patients. Int J Med Invest 2022; 11 (4) :28-37
34. Haghbeen M, Nazemifard A, Kalani N, Ghaedi M, Sepidkar A A. A Study of Women's Beliefs toward the Breast Cancer Screening Methods. Int J Med Invest 2020; 9 (3) :66-75

Table & Figure:

Table 1: Checking the normality of the statistical population using the Shapirolik test

	Variable	Mean	Frequency	P-value	Mean	Frequency	SD
	Lumpectomy	0.165	17	0.200	0.914	17	0.118
	Self-efficacy	0.108	54	0.200	0.938	54	0.008
Test result	P=0.200						

Table 2: The self-efficacy of statistical population

	Type of surgery	Frequency	Mean	SD	Mean standard error
Self-efficacy	Mastectomy	36	9.7778	7.60868	1.26811
	Lumpectomy	17	11.7059	9.50503	2.30531
Test result	P=0.200				

Table 3: The body mental image of the statistical population

	Type of surgery	Frequency	Mean	SD	Mean standard error
Body mental image	Mastectomy	34	21.6765	6.60909	1.13345
	Lumpectomy	18	25.0000	7.15377	1.68616
Test result	P=0.200				