



Research Paper

Lived Experiences of Women With Breast Cancer After Mastectomy: A Phenomenological Study



Parand Pourghane¹, Fatemeh Jafarzadeh-Kenarsari^{2*}, Yalda Donyaei-Mobarrez²

1. Department of Nursing, Social Determinants of Health Research Center, Zeynab (P.B.U.H) School of Nursing and Midwifery, Guilan University of Medical Sciences, Rasht, Iran.

2. Department of Midwifery, Social Determinants of Health Research Center, School of Nursing and Midwifery, Guilan University of Medical Sciences, Rasht, Iran.



Citation Pourghane P, Jafarzadeh-Kenarsari F, Donyaei-Mobarrez Y. Lived Experiences of Women With Breast Cancer After Mastectomy: A Phenomenological Study. Caspian Journal of Health Research. 2023; 8(4):199-208. <https://doi.org/10.32598/CJHR.8.4.248.1>

Running Title Lived Experiences of Women After Mastectomy

doi <https://doi.org/10.32598/CJHR.8.4.248.1>



ABSTRACT

Background: Breast cancer is the most common cancer and one of the main causes of death in women. Breast cancer and mastectomy is an unexpected event for women that can have negative or even positive consequences.

Objectives: This qualitative study aimed to explore women's lived experiences of mastectomy.

Materials & Methods: This qualitative study was conducted with a phenomenological approach at city of Rasht in Guilan Province, North of Iran during in 2017-2018. Twenty-three eligible women with breast cancer were interviewed. Thematic analysis method was used to analyze the data.

Results: The analysis of data led to the formation of 4 themes and 9 sub-themes. 1) The main theme of "dealing with fear" with 3 sub-themes: Fear of disruption in life- affected sexual relationships- expensive foreign medicines. 2) The main theme of "peaceful coexistence with disease" with 3 sub-themes: Surrender to divine determination, regular therapeutic follow-up, positive induction of optimism. 3) The main theme of "positive achievements of the disease" with 2 sub-themes: Personality development and maturity- strengthening emotional relationships with spouse, children and family. 4) The main theme of "constructive message for other women" with 1 sub-theme: Good spirit, the key to recovery.

Conclusion: Based on the findings, although breast cancer and mastectomy are a traumatic event, but hope, social and family support are important factors for acceptance of this unexpected event. Also, knowledge of the lived experiences of these women can help policy makers to plan for the management of this disease.

Keywords: Breast neoplasms, Mastectomy, Qualitative research, Women

Article info:

Received: 12 Aug 2023

Accepted: 11 Sep 2023

Published: 01 Oct 2023

* Corresponding Author:

Fatemeh Jafarzadeh-Kenarsari, PhD.

Address: PhD in Reproductive Health, Social Determinants of Health Research Center, Department of Midwifery, School of Nursing and Midwifery, Guilan University of Medical Sciences, Rasht, Iran.

Tel: +98 (911) 1350270

E-mail: f.kenarsari2013@gmail.com

1. Introduction

Breast cancer is the most common cancer and one of the main causes of death in women [1, 2], and one of the most important health concerns of the world [3, 4]. Breast cancer accounts for 24.5% of all cancer cases and 15.5% of cancer-related deaths, and in 2020, it ranked first in most countries in terms of incidence and mortality [5]. The prevalence of breast cancer in Iranian women is 23.6% [1] and it is the sixth cause of death in this country [6].

Accepting the diagnosis and treatment of the disease and facing an uncertain future is a traumatic event for women [7, 8]. Mastectomy is a treatment for breast cancer that can change a woman's appearance forever. This is despite the fact that the breast is considered a part of the female identity and represents sexuality, beauty, sexual attractiveness and motherhood [8].

Losing breasts as a symbol and identity of femininity can negatively affect a person's self-concept of femininity. Negative self-concept and dissatisfaction with body image, feelings of decreased sexual attractiveness and inconsistency between the real self and the ideal self can lead to psychological problems and affect the quality of life of women with breast cancer [8-11]. In other words, women in the process of dealing with breast cancer and related therapies experience changes in their concept of femininity due to the "social assumptions" that define them as women, not the actual definition from the idea of "being a woman" [12].

Considering the increasing prevalence of breast cancer and subsequent mastectomy for this group of women, awareness of these people's profound and lived experiences of changes will help healthcare system authorities and healthcare providers to plan and execute supportive psychosocial interventions to reduce psychological problems and improve the quality of life of these clients.

On the other hand, multidimensional nature of the phenomenon of "lived experience of women after mastectomy," its investigation needs to be carefully described and interpreted and cannot be explained merely by quantitative studies. Qualitative studies lead to more in-depth findings from research [13] that this depth and richness in hermeneutic phenomenology will culminate in its interpretative nature, for in the phenomenological approach, the focus is on the experiences of one's life, and these experiences are the experiences of life that make sense to the individual and tell the person what is actual and real

in his or her life [14]. Therefore, the present qualitative study aimed to explore the lived experiences of women with breast cancer after mastectomy with a hermeneutic phenomenology approach. In the present study, the hermeneutic phenomenology approach, with emphasis on the Van Manen method, was used to think about women's lived experiences and to interpret these experiences in women with breast cancer who underwent a mastectomy. Van Manen has introduced a philosophy that is a collection of Husserl and Heidegger philosophy, which is known as hermeneutic phenomenology. He recommends six overlapping dynamic activities that provide a framework for contemplating on the study experience and its interpretation to guide the hermeneutic phenomenology study [15].

2. Materials and Methods

Design

In the present qualitative study, the hermeneutic phenomenology approach, with emphasis on the Van Manen method [15], was used to think about women's lived experiences and to interpret these experiences in women with breast cancer who underwent a mastectomy.

Participants

The participants in this study included 23 women with breast cancer who underwent a mastectomy. The participants were selected using a purposive sampling method and among women who referred to public and private hospitals or clinics in Rasht, Iran, in 2017-2018. Participants' inclusion criteria included: Women with at least six months after unilateral or bilateral mastectomy, appropriate psychological readiness to be interviewed, being Iranian and able to speak and understand Persian language, lack of severe psychiatry disorders and consumption of psychotropic medicines based on patients' statement, the researchers' apparent estimation and their willingness to be interviewed and sharing their experiences. Individuals were given necessary explanations regarding the purpose of the study, confidentiality of information, and voluntary participation in the study. Written informed consent was obtained. Women were also assured that they could leave the study at any point if they were not willing to cooperate.

Data collection

Data collection was done between November 2017 and June 2018. Semi-structured interviews were used to collect data. Interviews began in a quiet environment at a

public clinic (breast clinic) in Rasht followed by initial explanations of the study purposes and obtaining oral and written informed consent from patients. The first participant was included in the study based on meeting the eligibility criteria and through a face-to-face interview. In this study, the number of participants and interviewees were the same, and each participant was interviewed only once. During the interview, there was no withdrawal from the subjects. The questions of interview included the following general questions: “What comes to your mind when you hear the word “cancer”?”, “Please tell me about your experiences with breast cancer, “tell me about your feelings about mastectomy,” and then more exploratory questions like “What did you mean by that? Can you explain more?” were used. The duration of each interview session varied between 30-60 minutes. The interview was guided based on the information obtained from the participants and the next participants were selected based on that information. Interviews continued until rich data as well as data saturation were obtained. All interviews were recorded and listened by the researchers and then the full transcript of the interview was accurately transcribed onto paper. Before the beginning of the interview, participants were assured that their names would be kept confidential to comply with ethical considerations, as well as participation in the research was optional and participants could be excluded from the study at any time. All three researchers were responsible for the data collection and data analysis.

Rigor

To ensure the rigor of the data, the 4-item criterion suggested by Lincoln and Guba was used which includes dependability, credibility, confirmability, and data transferability [16]. According to this, continuous review and observation of interviews, allocation of time, as well as external check, and complementary comments by university faculty members who were sufficiently familiar with qualitative studies were conducted to confirm the trustworthiness of data.

Data analysis

Data were analyzed manually and simultaneously with the data gathering. Thematic analysis method and the six-stage steps of Van Manen’s Hermeneutic-Phenomenology approach were used to analyze the data, which included these steps: 1) Turn to the nature of experience, 2) Experience reviewing 3) Thinking on the intrinsic themes of the phenomenon, 4) Interpretative writing and rewriting, 5) Maintain oriented and robust relation

to the phenomenon 6-Matching the context of the study by considering the components and the whole [15].

3. Results

The age range of the participants was 36-82 years. Education ranging was from illiterate to postgraduate. The majority of participants were housewives. Most of them had a moderate economic status, and all women had a mastectomy for at least the past six months (Table 1). The analysis of data on women’s lived experiences of mastectomy led to the formation of 298 initial codes. Then, the resulting codes were divided into 9 sub-themes and 4 themes based on similarity and conceptual content. 1) The main theme of “dealing with fear” with 3 sub-themes: Fear of disruption in life, affected sexual relationships, and expensive foreign medicines. 2) The main theme of “peaceful coexistence with disease” with 3 sub-themes: Surrender to divine determination, regular therapeutic follow-up, positive induction of optimism. 3) The main theme of “positive achievements of the disease” with 2 sub-themes: Personality development and maturity- strengthening emotional relationships with spouse, children and family. 4) The main theme of “constructive message for other women” with 1 sub-theme: Good spirit, the key to recovery (Table 2).

The main theme “dealing with fear”

The participating women in the present study talked about their continual fears and stresses that had affected their entire lives. The sub-themes, the fear of disruption in life, the affected sexual relationships, and the expensive foreign medicines expressed this main theme.

Fear of disruption in life

Women expressed their worries and concerns about different conditions. When they heard the word “cancer,” they thought that their lives ended and believed that the treatments were in vain. “When the physician told me I had breast cancer, I felt the world has ended, and I told myself what I needed to do when I knew I couldn’t be cured” (No. 2, 44 years old). Some also said that self-care in the future is a stressful concept, time-consuming, and high economically pressing. “When I heard that I was getting this disease (stares at the floor), I thought I would not have a chance to live anymore. I have to depend on my husband and kids forever, and if I have surgery, what will be the result, somebody must always pass his or her time to take care of me” (No. 5, 57 years old). “I had heard that this disease is very costly. Due to the economic situation of our family, I realized

Table 1. Characteristics of the study participants

Participants	Education	Marital Status	Age	Job
1	Illiterate	Married	60	Housewife
2	Elementary	Married	44	Housewife
3	Diploma	Married	36	Housewife
4	High School	Married	50	Housewife
5	Illiterate	Married	57	Housewife
6	Elementary	Married	61	Housewife
7	Elementary	Married	49	Housewife
8	Bachelor	Married	40	Housewife
9	Illiterate	Widow	82	Housewife
10	Bachelor	Married	36	Employee
11	Diploma	Married	42	Housewife
12	Illiterate	Married	81	Housewife
13	Illiterate	Married	52	Housewife
14	Bachelor	Married	40	Housewife
15	Diploma	Married	60	Housewife
16	Bachelor	Married	42	Employee
17	Diploma	Married	59	Housewife
18	Associate degree	Married	64	Retirement
19	Associate degree	Married	55	Housewife
20	Illiterate	Widow	68	Housewife
21	Diploma	Married	52	Housewife
22	Diploma	Married	49	Housewife
23	Diploma	Married	53	Housewife



that I had lost all my life” (No. 7, 49 years old). Some participants expressed their concern about the contagion of their disease. “I didn’t like my children come so near to me. I was afraid that my disease transmits to them. I was always afraid that my daughters would get this disease in the future” (No. 1, 60 years old).

Affected sexual relationships

Although most understudy participants tried to show that disease and mastectomy did not affect sexual rela-

tions with their spouse, some did state the effect of the disease on their sexual relationships. “After my disease, I did not want to have sex with my husband. I was ashamed, and it was very stressful for me to have surgery and have just one breast and then want to have sex with my husband” (No. 14, 40 years old).Some also spoke of having sexual problems in the time of the disease.”Because I was feeling dry in the vagina, sex was painful for me, and I had no desire to sex to my husband” (No. 10, 36 years old).

Table 2. Main themes, sub-themes, and initial codes extracted from describing and interpreting of women’s experiences after Mastectomy

Themes	Sub-themes	Codes
Dealing with fear	Fear of disruption in life	Fear of how to take care of the child Fear of loneliness Fear of an uncertain future Involve the whole family Fear of dependence
	Affected sexual relationships	Dyspareunia Loss of sexual desire Incuriosity
	Expensive foreign medicines	Exorbitant cost of treatment Inefficiency of supplementary insurances
Peaceful coexistence with disease	Surrender to divine determination	Hope for divine mercy God’s constant help Belief in God’s will
	Regular therapeutic follow-up	Obedience to the doctor’s words to protect your health Cutting hair with the onset of hair loss Removing the breast is a way to prevent cancer of other parts
	Positive induction of optimism	Hope for treatment and recovery Accepting breast surgery is like pulling a tooth Losing breasts in exchange for health and life Gap filled with prosthesis Try to enjoy the moments of life
Positive achievements of the disease	Personality development and maturity	Health is more important than beauty Thank God for not getting a worse disease Little attention to the loss of femininity Prioritize your health over people’s opinion
	Strengthening emotional relationships with spouse, children and family	Support from family and friends Continuous family support (spouse/children)
Constructive message for other women	Good spirit, the key to recovery	Appreciate the beauty of life Living for others (spouse/children) Being thankful to God for what we have No need to fear hearing about cancer



Expensive foreign medicines

Participants said that many medications, especially foreign medicines were expensive and led to undermine the economic balance of their lives. “It is so expensive drugs that you have to sell all your living, and insurance assistance are too little” (No. 9, 82 years old).

The main theme of “peaceful coexistence with the disease”

Participants stated that the passing of days and the constant accompaniment of their entourage, such as spouses, children, and friends, helped them to coexist peacefully with their disease. They said that they had surrendered to Divine destiny and were working to continue their lives by regularly following their treatments to cope with the disease and in this way by positively expressing optimism.

Surrender to divine determination

Most participants knew the occurrence of this disease to be a divine determination and believed that it should be surrender to divine determination. “I told myself this was the determination that God appointed for me. God is not a malicious servant of his own. He will help me, and he will well provide my determination. So, I’m also trying to improve myself as soon as possible” (No. 1, 60 years old).

Regular therapeutic follow-up

Participants stated that they accepted to continue living because of their spouse, children, and friends. So they tried to follow-up on their treatment plan regularly to get better healing. “When I was watching my husband and children are working hard for me, I told myself the

least I could do it's that I attend regular therapies so that I could stay with them as much as possible" (No. 6, 61 years old).

Positive induction of optimism

Many participants expressed on trying to optimism. They said about the comparison of their illness with many other diseases that have no cure, and they felt satisfied by this comparison. They tried to calm themselves by positive induction, trying to substitute the missing breast by the prosthesis, and that health is more important than physical beauty. They strived to maintain a pleasant sense of individual independence by doing as much of their work as possible and had independence as much as possible. "I say to myself, 'Well, don't have abreast; it's not a big deal. It's better than die and not be with your family anymore'" (No. 15, 60 years old).

The main theme of "positive achievements of the disease"

Another main theme in the study was "positive achievements of the disease". Along with the suffering and negative experiences resulting from cancer and mastectomy, women emphasized the development and maturity of personality during the disease process, and strengthening of their emotional relationships with their spouse, children, and family as positive results of the disease.

3.1. Personality development and maturity The women participating in this study cited factors such as self-construction and empowerment, along with having a new perspective for life, endurance to hardships, and self-empowerment, as positive achievements of the disease. "Every moment of life is a new experience, and I hope everyone experiences it without pain. After this disease, I always tell myself after it could have been worse for me. Anyway, as I breathe and stand on my own and can do my works by myself is very valuable to me" (No. 18, 64 years old). "I realized that I do not live only for myself and that there are at least five or six people who need me. So, I tried to make myself stronger, and this disease has made me more tolerant of hardships" (No. 2, 44 years old).

3.2. Strengthening the relationships with spouse, ch Participants repeatedly emphasized the positive effect of the disease on knowing more about their spouse, children, and family, and it resulted in a strengthened emotional relationship with them. "One of the positive results of this disease was that I was able to get to know my husband, children, and family more. During the hard

days of the disease, they proved that I am important to them; they always consoled and supported me" (No. 9, 82 years old).

The main theme of "constructive message to other women"

The fourth main theme extracted from the description and interpretation of the experiences and expressions of the study participants was a message for other women about a good spirit is the key to recovery.

Good spirit; the key to recovery

Most of the women participating in the present study believed that hope and spirit are the keys to achieving successful therapeutic results. "I am a funny person with an excellent spirit, and I always smile at every situation. Thank god I did not lose my hope and spirits during this disease, and now I am in good condition" (No. 19, 55 years old). "After breast surgery, my family, friends, relatives, and neighbors came to visit me. I talked and laughed with all of them. I always said that I did not want this uninvited guest to come to me (she laughs). Thankfully I had a good spirit" (No. 12, 81 years old).

4. Discussion

In the present study 4 main themes were extracted: 1) Dealing with fear, 2) Peaceful coexistence with the disease, 3) Positive achievements of the disease, and 4) Constructive message for other women.

The first main theme resulted from the analysis of the participants' statements and experiences, which was the reflection of patient's fears in facing disease diagnosis, was developed based on 3 sub-themes of fear of disruption in life, affected sexual relationships, and expensive foreign medications. In the current study, women argued that they assumed their lives are ended when they heard the word "cancer", and they thought it is useless to accept treatment. Their most common concerns were fear of economic problems, fear of disease transmission, or children affliction with this disease in the future. In other words, mastectomy affects women's mental health in addition to their physical health [17]. Psychological outcomes in women with breast cancer include feelings of fear, anxiety, sadness, depression, distorted body image, feeling that body is out of beauty standards, feeling shy about appearing with new look, fear of judgmental and questioning looks on people, social isolation, concerning about the spouse's reaction, sexual dysfunction, and fear of losing relationships that severely affect the qual-

ity of life of the patient and her family [18-21]. Based on a study on Turkish women undergoing mastectomy, it was indicated that mastectomy had a negative effect on their body image and quality of life and was followed by mental disorders, such as anxiety and physical health decline [22]. According to another study, women who underwent mastectomy stated that, when they first saw the surgical scar, they felt frightened and different from others, and after surgery, they found themselves incapable of performing social activities, as well as daily housework that has led to a sense of emptiness and inefficiency in them [23].

Regarding the sub-theme of “affected sexual relationships,” the analysis of the experiences and perspectives of the women participating in the study demonstrated that, even though some participants tried to deny the effect of disease and surgery on their sexual relationships, others reported the negative impact of the disease on their sexual relationships. Mastectomy is considered as the destruction of a part of the female body that not only affects the maternal dimension but also influences their femininity, beauty, and sexual attraction [18, 23]. Sexual activity is one of the essential dimensions of quality of life, but the attempts of the treatment team are usually based on focusing on maintaining and sustaining the patient’s life and less attention is paid to patients’ sexual function [24]. Changes in the sexual function following mastectomy include reduction in the quantity and quality of sexual relationship due to reasons such as trying not to show the surgical area during sexual intercourse and the feeling of lack of body beauty after surgery, as well as sexual canniness and prioritizing the needs of the other party over their needs [25].

The other main theme resulted from the analysis of the study participants’ experiences, which somehow indicated the peaceful coexistence with the disease, was described based on 3 subthemes of surrendering to divine determinations, regular therapeutic follow-up, and positive induction of optimism. Study participants argued that, by constant support of “important others” and surrendering to divine determination and for the sake of their husbands, children, and friends, they have tried to peacefully coexist with their disease, continue life, and take steps towards adapting to this disease via solutions such as regular follow-up to the therapeutic process, and positive induction of optimism, such as comparing their condition by disease that are not treatable yet, and that health is much more important than physical beauty. Similar to the findings of the current study regarding the efforts made for positive induction of optimism, in a study conducted by Zhang et al.(2018) it was indicated

that optimism encouraged the patient to participate in the diagnosis and treatment process, and it was introduced as a factor improving patient’s health [19]. Regarding according to a study willingness to live longer due to fear of the uncertain future of the children was an essential reason for the decision of studied women to undergo prophylactic mastectomy [26].

The third main theme resulted from the analysis of the participants’ experiences that somehow reflects the positive outcomes of the disease was developed based on two subthemes of personality development and maturity and strengthening emotional relationships with spouse, children, and family. Participants argued that mastectomy and participating in various therapeutic programs, along with the severe pain of the disease and adverse experiences of cancer, lead to self-construction and endurance to hardships, maturity of personality, approaching God, and knowing the spouse better and strengthening the emotional relationship between the spouse, children, and family have ultimately changed their view of life. Given that self-concept is an abstract concept that includes a set of thoughts, emotions, and values that a person perceives for herself and is confirmed by the individual and determines how she behaves [27], therefore, to explain the above findings, it can be stated that, breast cancer and mastectomy are unforgettable events in women’s lives and that their life experiences differ from one to another [18] and not only affect one’s life but also extend to different aspects of life of those around them. Adaptation to these changes seems complicated [21]. Mastectomy can lead to a decrease in the quality of life in women by changing body image [28]. Also, cultural and social stereotypes of society about women’s sexuality can influence one’s social relationships and even self-care behaviors in the diagnosis and treatment process and affect their quality of life in various ways, including creating negative body image [22, 29].

The fourth main theme extracted from the description and interpretation of the experiences and expressions of the study participants was a message for other women about a good spirit is the key to recovery. Traumatic events in life such as breast cancer can have negative or positive consequences [30]. Positive or negative adaptation after mastectomy depends on different psychological factors [31]. In the present study, based on positive and negative experiences, participants proposed continuously recommendations on the prevention, regular testing, periodic examinations, not delaying the referral to a physician after touching a mass in the breast, as well as compliance with therapeutic recommendations of physicians given after afflicting with the disease. They

also considered good spirit as a powerful and unmatched weapon in fighting against cancer. In explaining the findings mentioned above and based on the study by Martei et al. (2018) it was indicated that fear of mastectomy, inadequate information, stigma associated with the diagnosis of cancer as a result of the cultural construction of society and even the individual herself, lack of social and financial support, are the causes of postponing the treatment and follow-up processes in women with breast cancer [29].

5. Conclusion

Based on the findings, mastectomy did not have a negative effect on sense of femininity, but women's fear and hopes can be understood by a more in-depth look into the data. Breasts are the symbol of femininity, beauty and apparent attraction, sex organ, and motherhood. Lack of this symbol is followed by a long and heavy sadness, inconvenience, low self-confidence. Social and family support, hope and good spirits, and positive induction of optimism are the most important strengths that facilitate women's tolerance of their disease. Also, knowledge of the lived experiences of these women can help specialists and policy makers to plan for the management of this disease with sufficient evidence.

Limitations

One of the limitations of this study is that, due to cultural and social considerations, the answers to questions about sexual relationships may be influenced. More studies are recommended around this issue.

Ethical Considerations

Compliance with ethical guidelines

This study is derived from the research project approved by the Vice-Chancellor for Research and Technology and Ethics Committee of [Guilan University of Medical Sciences](#) (Code: IR.GUMS.REC.1396.93).

Funding

This study was supported by the [Guilan University of Medical Sciences](#).

Authors' contributions

Conceptualization, formal analysis: Parand Pourghane and Fatemeh Jafarzadeh-Kenarsari; Data collection: Yalda Donyaeei-Mobarrez; Writing the article and final approval: All authors.

Conflict of interest

The authors declared conflict of interest.

Acknowledgements

The researchers would like to express their sincere thanks to Research and Technology Vice-Chancellor and the Research Center for Social Determinants of Health of [Guilan University of Medical Sciences](#) and all contributors to this study.

References

- [1] Kazeminia M, Salari N, Hosseini-Far A, Akbari H, Bazrafshan M-R, Mohammadi M. The prevalence of breast cancer in Iranian women: A systematic review and meta-analysis. *Indian J Gynecol Oncol*. 2022; 20(1):14. [DOI:10.1007/s40944-022-00613-4]
- [2] Huang J, Chan PS, Lok V, Chen X, Ding H, Jin Y, et al. Global incidence and mortality of breast cancer: A trend analysis. *Aging (Albany NY)*. 2021; 13(4):5748-803. [DOI:10.18632/aging.202502] [PMID] [PMCID]
- [3] Panahi R, Namdar P, Siboni FS, Fallah S, Anbari M, Dehghankar L, et al. Association between health literacy and adopting preventive behaviors of breast cancer in Iran. *J Edu Health Promot*. 2020; 9:241. [DOI:10.4103/jehp.jehp_313_20] [PMID] [PMCID]
- [4] 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; 18(4):1640. [DOI:10.3390/ijerph18041640] [PMID] [PMCID]
- [5] Lei S, Zheng R, Zhang S, Wang S, Chen R, Sun K, et al. Global patterns of breast cancer incidence and mortality: A population-based cancer registry data analysis from 2000 to 2020. *Cancer Commun (Lond)*. 2021; 41(11):1183-94. [DOI:10.1002/cac2.12207] [PMID] [PMCID]
- [6] Dolatkah R, Somi MH, Jafarabadi MA, Hosseinalifam M, Sepahi S, Belalzadeh M, et al. Breast cancer survival and incidence: 10 years cancer registry data in the Northwest, Iran. *Int J Breast Cancer*. 2020; 2020:1963814. [DOI:10.1155/2020/1963814] [PMID] [PMCID]
- [7] Dinapoli L, Colloca G, Di Capua B, Valentini V. Psychological aspects to consider in breast cancer diagnosis and treatment. *Curr Oncol Rep*. 2021; 23(3):38. [DOI:10.1007/s11912-021-01049-3] [PMID] [PMCID]
- [8] Sukartini T, Permatasari YI. Women with breast cancer living with one breast after a mastectomy. *Cent Eur J Nurs Midw*. 2020; 12(2):366-75. [DOI:10.15452/cejnm.2021.12.0012]
- [9] Martins Faria B, Martins Rodrigues I, Verri Marquez L, da Silva Pires U, Vilges de Oliveira S. The impact of mastectomy on body image and sexuality in women with breast cancer: A systematic review. *Psicooncologia*. 2021; 18(1):91-115. [DOI:10.5209/psic.74534]

- [10] Marsh S, Borges VF, Coons HL, Afghahi A. Sexual health after a breast cancer diagnosis in young women: Clinical implications for patients and providers. *Breast Cancer Res Treat.* 2020; 184(3):655-63. [DOI: 10.1007/s10549-020-05880-3] [PMID]
- [11] Chen SQ, Sun N, Ge W, Su JE, Li QR. The development process of self-acceptance among Chinese women with breast cancer. *Jpn J Nurs Sci.* 2020; 17(2):e12308. [DOI:10.1111/jjns.12308] [PMID]
- [12] Martinez-Ramos GP. Body Image and Femininity of Latina Breast Cancer Survivors. *Camino Real.* 2009; 1(1):89-109. [Link]
- [13] Morse JM, Field PA. The application of qualitative approach. London: Stanley Thornes Publishers; 1995. [Link]
- [14] Speziale HS, Carpenter DR. Qualitative research in nursing. Philadelphia: Lippincott Williams & Wilkins; 2011. [Link]
- [15] Van Manen M. Researching lived experience: Human science for an action sensitive pedagogy. New York: Routledge; 2016. [Link]
- [16] Stahl NA, King JR. Expanding approaches for research: Understanding and using trustworthiness in qualitative research. *J Dev Educ.* 2020; 44(1):26-28. [Link]
- [17] Jetha ZA, Gul RB, Lalani S. Women experiences of using external breast prosthesis after mastectomy. *Asia Pac J Oncol Nurs.* 2017; 4(3):250-8. [DOI:10.4103/apjon.apjon_25_17] [PMID] [PMCID]
- [18] Durães Rocha JF, Rodrigues Cruz PK, Aparecida Vieira M, Marques da Costa F, de Almeida Lima C. Mastectomy: Scars in female sexuality. *J Nurs UFPE.* 2016; 10(5):4255-63. [Link]
- [19] Zhang H, Xiao L, Ren G. Experiences of social support among Chinese women with breast cancer: A qualitative analysis using a framework approach. *Med Sci Monit.* 2018; 24:574-81. [DOI:10.12659/MSM.908458] [PMID] [PMCID]
- [20] Schmidt JL, Wetzel CM, Lange KW, Heine N, Ortman O. Patients' experience of breast reconstruction after mastectomy and its influence on postoperative satisfaction. *Arch Gynecol Obstet.* 2017; 296(4):827-34. [DOI:10.1007/s00404-017-4495-5] [PMID]
- [21] Hoseini S, Davoodi J, Habibi M, Fielding R. [Comparison of the expected outcome of the mastectomy with perceived treatment outcomes based on self-efficacy in women with breast cancer (Persian)]. *Health Psychol.* 2015; 3(12):70-83. [Link]
- [22] Türk 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. [DOI:10.5152/ejbh.2018.3875] [PMID] [PMCID]
- [23] Koçan S, Gürsoy A. Body image of women with breast cancer after mastectomy: A qualitative research. *J Breast Health.* 2016; 12(4):145-50. [DOI:10.5152/tjbh.2016.2913] [PMID] [PMCID]
- [24] Shayan A, Khalili A, Rahnavardi M, Masoumi SZ. [The relationship between sexual function and mental health of women with breast cancer (Persian)]. *Avicenna J Nurs Midwifery Care.* 2016; 24(4):221-8. [DOI:10.21859/nmj-24042]
- [25] Khajehaminian F, Ebrahimi M, Kamali M, Dolatshahi B, Younesi SJ. Sexual functioning after mastectomy surgery-A qualitative study. *Iran Q J Breast Disease.* 2014; 7(3):50-8. [Link]
- [26] Glassey R, O'Connor M, Ives A, Saunders C, Hardcastle SJ; kConFab Investigators. Influences on decision-making for young women undergoing bilateral prophylactic mastectomy. *Patient Educ Couns.* 2018; 101(2):318-23. [DOI:10.1016/j.pec.2017.08.008] [PMID]
- [27] Gharibi Asl A, Sodan M, Atari A. [The effectiveness of Cognitive-Behavioral Group counseling on self-concept and depression in women with breast cancer (Persian)]. *Jundishapur Sci Med J.* 2016; 15(3):333-45. [Link]
- [28] Maharjan M, Thapa N, Adhikari RD, Petrini MA, Amatya KS. Quality of life of Nepalese women post mastectomy. *Asian Pac J Cancer Prev.* 2018; 19(4):1005-12. [DOI:10.22034/APJCP.2018.19.4.1005] [PMID] [PMCID]
- [29] Martei YM, Vanderpuye V, Jones BA. Fear of mastectomy associated with delayed breast cancer presentation among Ghanaian women. *Oncologist.* 2018; 23(12):1446-52. [DOI:10.1634/theoncologist.2017-0409] [PMID] [PMCID]
- [30] Bahrami M, Taleghani F, Loripoor M, Yousefy A. Positive changes after breast cancer: A qualitative study. *J Educ Health Promot.* 2015; 4:55. [DOI:10.4103/2277-9531.162353] [PMID] [PMCID]
- [31] Izydorczyk B, Kwapniewska A, Lizinczyk S, Sitnik-War-chulska K. Psychological resilience as a protective factor for the body image in post-mastectomy women with breast cancer. *Int J Environ Res Public Health.* 2018; 15(6):1181. [DOI:10.3390/ijerph15061181] [PMID] [PMCID]

This Page Intentionally Left Blank
