

Association between Body Image Related Anxiety and Stress Among Women with Breast Cancer in Babil

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Abstract

Background: Breast cancer (BC) is the most common malignant disease that develops from breast tissue, Some women may experience cancer stigma as a consequence of treatment-related changes to their appearance hair loss, or loss of breast (one or both of them). When women with BC know about their disease or the disease worsens or the therapy progresses, they may experience an increase in anxiety levels. **Objectives:** To correlate body image with anxiety and stress among women with BC. **Materials and Methods:** A descriptive (cross-sectional) design study was conducted in Babylon Province from the period December 2021 to March 2023, aiming to identify the correlation between body image and anxiety and stress among women with BC. The data was examined utilizing statistical and descriptive data analysis methods carried out by (Statistical Package for the Social Sciences (SPSS, version 20). **Results:** The results of the present study show that women with BC experience different levels of feelings of losing their body image, anxiety, and stress. There was a significant correlation between body image and anxiety and stress, and there was an association between body image, anxiety and stress, and socio-demographic characteristics of study participants. **Conclusions:** Highly significant differences in the level of body image, anxiety, and stress with socio-demographical characteristics of the study sample at ($P > 0.05$) while the study result shows that there was no significant relationship with other socio-demographical data at P value ($P > 0.05$). There was a positive correlation between body image and anxiety and stress among women with BC.

Keywords: Anxiety, body image, breast cancer, stress

INTRODUCTION

Breast cancer (BC) is the most common malignancy disease worldwide, with an estimated 4.4 million females having been diagnosed within the previous 5 years and still living.^[1]

In order for the body to develop new tissues and repair old ones, cell division and growth must occur. On the other hand, BC develops when the cells that normally make up the tissue of the breast stop dying and instead divide indefinitely.^[2]

Infertility, hair loss, exhaustion, weight gain or weight loss, reduced libido, and menopausal symptoms are just some of the negative side effects of radiation, chemotherapy, and adjuvant therapy that may pose a major danger to the sense of a woman herself and her femininity.^[3]

Some women may experience cancer stigma as a consequence of treatment-related changes to their appearance, such as side effects of chemotherapy (hair loss) or as a result of post-mastectomy (loss of breast [one or both of them]).^[4]

Anxiety is a common response to cancer, and it gets worse for women once they learn they have BC because they feel like their situation is dire and they are heading toward death. People who have cancer will notice that their anxiety levels fluctuate over time.^[5]

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Submission: 09-Jun-2023 **Accepted:** 12-Sep-2023 **Published:** 23-Jan-2026

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How to cite this article: Fadhel HM, Jihad SK. Association between body image related anxiety and stress among women with breast cancer in Babil. Med J Babylon 2025;22:1209-13.

Access this article online

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DOI:
10.4103/MJBL.MJBL_716_23

BC patients may experience combined effects of the disease's psychological and physical stresses. Consequentially, they suffer a decline in their psychological, emotional, and physical health.^[6]

The chronic condition is considered a psychologically traumatic disease and given the symbolic importance of the breast in the formation of both sexual identity, body image, and self-esteem for women.^[7,8]

Several studies have been conducted to evaluate the variations in levels of anxiety experienced by BC patients undergoing various therapies. The anxiety level in women who underwent chemotherapy was highest before the first chemotherapy infusion, mediated by age, the level of anxiety was. The level of anxiety was highest among younger women, while older women suffered from anxiety at a lower level.^[9]

Those who have survived BC and have a poor body image often feel ashamed of their bodies, have low self-esteem, and struggle to enjoy intimate relationships because they are self-conscious about their body image and their mastectomy scars.^[10]

The objectives of the study are to identify the anxiety level among women with BC, to identify the stress among study participants, and to correlate body image with anxiety and stress among those women.

MATERIALS AND METHODS

A descriptive (correlation) design study was conducted in Babylon Province which was selected to confirm its objectives through the period December 2021 to March 2023. A total of 100 participants of BC women were selected through a non-probability convenient sample in the Babylon Oncology Center at Marjan Medical City.

Following a comprehensive assessment of the relevant literature, a questionnaire was created and amended. This questionnaire is divided into five parts: the sample's socio-demographic characteristics which include age, occupation, monthly income, and living status. Clinical information includes the stage of disease, recurrence, type of surgery, and family history of BC. Scale of body-image 12 items. Scale of anxiety Spielberger State-trait Anxiety Inventory which consists of 20 items.^[11] And scale of stress 20 items.^[12] Direct interviewing is done to gather data using a structured questionnaire. For the purpose of completing the questionnaire, an estimated interview duration of 25–30 min was given. A committee of 17 professionals verified the questionnaire and a pilot study was carried out to establish the instrument's reliability. Data were collected after acquiring an official agreement from the department of development and a training/branch of studies and educational research in Babylon education directorate, through using research instruments in the period from 9th August to 29th November 2022.

Ethical approval

The study was conducted in accordance with the ethical principles that have their origin in the Declaration of Helsinki. It was carried out with patients' verbal and analytical approval before the sample was taken. The study protocol, the subject information, and the consent form were reviewed and approved by a local ethics committee according to document number 1762 (including the number and the date on July 24, 2022) to get this approval.

RESULTS

Table 1 findings showed age was 48.60 ± 9.90 ; more than two-fifths aged 47–56 years ($n = 43$; 43.0%), and concerning the occupation, more than a half were housewives ($n = 61$; 61.0%). Regarding monthly income, the majority reported not enough ($n = 71$; 71.0%), and concerning living status, the majority of study participants lived with their family ($n = 93$; 93.0%).

The study results show that half of the study participants are in the third stage of the disease ($n = 50$; 50.0%) [Table 2], concerning recurrence of the disease, most reported not having so ($n = 75$; 75.0%). Regarding the type of surgery, all participants reported that they had a previous mastectomy. Ultimately, more than half reported that they have a family history of BC ($n = 55$; 55.0%).

Table 1: Socio-demographic characteristics

SDVs	Classification	Freq.	%
Age/years	27–36	15	15.0
	37–46	20	20.0
	47–56	43	43.0
	57–67	22	22.0
Occupation	Employed	15	15.0
	Free Business	19	19.0
	Housewife	61	61.0
	Retired	5	5.0
Monthly income	Enough	29	29.0
	Not enough	71	71.0
Living status	Living alone	7	7.0
	Living with family	93	93.0

SDVs: socio-demographic characteristics

Table 2: Participants' medical profile

Clinical information	Classification	Freq.	%
Stage of disease	Stage 1	5	5.0
	Stage 2	45	45.0
	Stage 3	50	50.0
Recurrence	Yes	25	25.0
	No	75	75.0
Type of surgery	Mastectomy	100	100.0
Family history of BC	Yes	55	55.0
	No	45	45.0

The study results reveal that there are statistically significant inverse correlation between participants' age and depression, social isolation within the family, and social effectiveness. There are statistically significant positive correlation between the anxiety and stress women experience and their loss of self-image.

DISCUSSION

Results of the present study show that more than forty three percent of the age group is 47–56 years old [Table 1]. These young people may lack information on BC and its warning signals since they were compelled to abandon their schooling because of cultural, value, tradition, social, and economic circumstances in the community in the past. This study agrees with^[13] in China who found that more than half of the women with BC had primary or junior school. While a study conducted by^[14] found that the majority of the study sample (68%) had higher education.

The study results depict that more than a half moderately feel of losing their self-image [Figure 1]. Mastectomy and hair loss due to chemotherapy may be a serious threat to the self-image of a woman. BC physical appearance alterations have been proven to have a negative impact on body image satisfaction, which includes perceptions of attractiveness and contentment with one's body. Regarding the results of the current study agree with the study done by Guedes *et al.*^[15] The results of this study displayed about 74% prevalence of body image dissatisfaction in women submitted to BC treatment. A study conducted by Runowicz *et al.*^[16] reported a high prevalence of approximately 76% of women who survived BC experiencing body-image changes and feeling disturbed by these changes. Another study inconsistency has reported the prevalence of female with BC who have a degree of self-consciousness about their appearance as between 15% and 33%.^[17]

The study results show that 68% experience severe anxiety [Figure 2]. This finding could be explained as that half

of the participants were in the third stage of their disease which involves more intense pain and other features of complaints and exposure to events, especially with regard to health, and the incidence of such a fatal disease, makes the patient think about the seriousness of the disease, treatment, and thinking about the family, the people we love, and responsibilities. The patient can think about the life of his loved ones in the event of his death all this puts the patient in a state of constant anxiety.^[18] reported a prevalence of anxiety of 32% in patients with BC. In a study performed by Civilotti *et al.*^[19] even 52% of patients affected by BC presented symptoms of anxiety. Another study supported the presented study done by Podvorica *et al.*^[20] who found stress, worried feelings, and anxiety are significant problems that impact women with BC.

The study results display that more than a half experience moderate stress [Figure 3]. The explanation of this result is due to the embarrassment of BC women by the burden of cancer diagnosis, the whole therapy, and the pain that combined with it, disability to perform their usual responsibilities and thinking about disease outcome and the future all this put the patient in stressful satiation. A study by Alagizy *et al.*^[21] showed that the majority of the

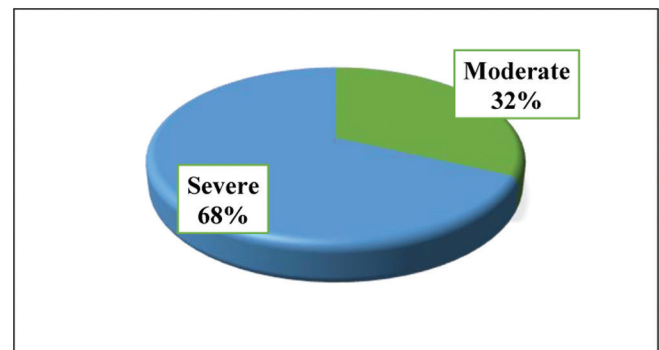


Figure 2: Participant's level of anxiety. The study results display that most experience severe anxiety ($n = 68$; 68.0%) compared to those who experience a moderate level of anxiety ($n = 32$; 32.0%)

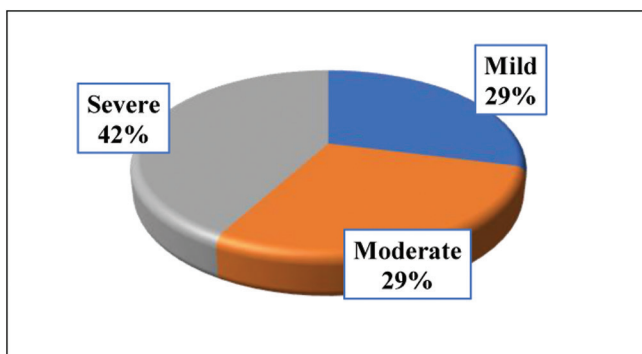


Figure 1: Participant's level of feeling of losing their self-image. The study results depict that more than a half moderately feel their loss of self-image ($n = 56$; 56.0%), followed by those who severely feel so ($n = 39$; and those who mildly feel so ($n = 5$; 5.0%)

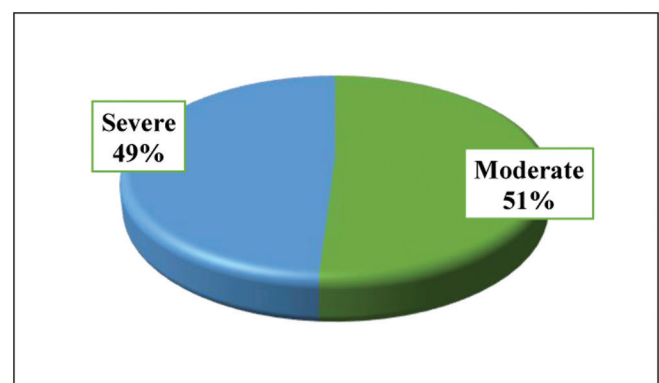


Figure 3: Participant's level of stress. The study results display that more than a half experience a moderate stress ($n = 51$; 51.0%) compared to those who experience severe levels of stress ($n = 49$; 49.0%)

Table 3: Correlation among participant's age, psychological and social themes

Variables	1	2	3	4
1 Age	–			
2 STAI	–0.622**	–		
3 Stress	–0.624**	0.678**	–	
4 Self-image	–0.717**	0.622**	0.846**	–

STAI: State-Trait Anxiety Inventory

**Correlation is significant at the 0.01 level (2-tailed)

participants were experiencing stress observed in the study group and their stress level was high, approximately 78%.

A study done by Hassan *et al.*^[22] showed that the prevalence of patients with BC often suffer from significant levels of psychological anguish and are more likely to experience extreme stress. And, Riba *et al.*^[23] conducted a study and they found that the BC patients throughout their course of treatment, from initial diagnosis to adjuvant treatment, stress plays a major role and influence on their psychological health. While a study conducted by Abbey *et al.*^[24] to study stress after exposure to the trauma of BC diagnosis and treatment, and they found a small percentage of the study sample suffering from stress.

The study results exhibited that there was a statistically significant inverse correlation between participants' age and loss of self-image [Table 3]. Younger women pay great attention to their external appearance because they need love, husband, and attention from their partners more than older women. Fear of losing a husband or partner because of physical changes, feel of loss of their femininity, and lack of self-confidence lead to more psychological and social problems. Furthermore, they can. This finding is consistent with that of those who concluded that the woman's age is an important indicator of dissatisfaction with body image, and this relationship is inverse and decreases with age.^[25]

There are statistically significant positive correlation between loss of self-image and women's experiences related to anxiety and stress. This study consistence with Al-Azri *et al.*^[26] who found a positive correlation as a result of the loss of feminine symbols, women may feel low self-esteem, poor body image, inaccurate self-perception, stress, and anxiety.

A study conducted by Borgi *et al.*^[6] concluded that women often worry about their appearance, which may have a negative impact on their psychological status which can cause stress and anxiety about their life and future. This is significant because women are more likely than males to experience emotional distress in the face of adversity. The presented study agrees with the findings of Hakulinen *et al.*^[27] and Domenech-Abella *et al.*^[28] showing that the majority of women who lose their body image experience loneliness, stress, and anxiety all have a major negative influence on one's emotional well-being and physical

health. Because they have an immediate negative influence on mental, despair, stress, and loneliness are particularly harmful and assess their health as being poorer.

CONCLUSION

According to the findings of this study, the majority of women with BC experience severe feelings of losing their self-image, severe levels of anxiety, and moderate levels of stress. There was a significant positive correlation between the loss of self-image women experience and the level of anxiety and stress.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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