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## Abstract

Breast cancer (BC) diagnosis and treatment can affect women both physically and psychologically. Women with BC undergo various painful and debilitating therapies as well as emotional trauma. Additionally, treatment modalities can bring about multiple changes, causing distress and alteration in one's appearance. This study aimed to assess the psychological distress and body image disturbances after modified radical mastectomy (MRM) among BC survivors. Correlational research design was used to conduct this quantitative research. Survey was administered with closed ended questionnaires as method of data collection. Purpose sampling technique was employed to select the sample of study 50 (married=31, unmarried=19) breast cancer survivors. Three research instrument were used; DASS-21 (Henry & Crawford, 2005) and Body Image Scale ((Hopwood et al., 2001). Findings of study reveal that there is positive correlation between psychological distress and body image disturbance. Moreover, depression, anxiety and stress are the significant positive predictors of body image disturbance. BC survivors experience high rates of depression, anxiety, stress, and body image dissatisfaction. Furthermore, unmarried breast cancer survivors report higher score of psychological distress and body image disturbance as compared to married. Depression, anxiety, stress, and body image issues are common among BC survivors. Follow-up management plans for BC survivors should also include evaluation and treatment of psychological distress and addressing body image disturbances in patients undergoing mastectomy.

**Keywords:** Psychological distress, body image

## 1. Introduction

Breast cancer (BC) is the most common malignancy in women globally (Bray et al., 2018). Fortunately, the survival rate is increasing owing to increased awareness of the disease and improved technology for early detection (Malvia et al., 2017). Treatment for BC typically involves surgery, chemotherapy, radiotherapy, and hormonal tablets over an extended period (Malvia et al., 2019). A varying range of side effects are associated with the medical treatment of BC. This painful and unwelcomed treatment journey for a long period result in psychological distress. Treatment-related adverse effects, fear of death and adjuvant therapy result in body image issues such as hair loss, weight gain, partial or complete removal of one or both breasts, incorrect positioning of breasts and asymmetry of the breast, severe scarring, and breast alteration (Thakur et al., 2022). Body image disturbances (BID) are associated with a woman's identity, sexuality, self-esteem, sense of self, and psychological distress (Thakur et al., 2019; Thakur et al., 2022). Studies from India suggest unmet mental health needs of patients with cancer (Thakur et al., 2019; Adeel, 2019; Kar & Thakur, 2020). Understanding the psychological distress associated with body image distress among BC survivors will provide insights into developing a holistic care model. The current study aimed to assess psychological distress and body image issues in BC survivors. Body image refers to the subjective perception and emotional reaction to one's physical appearance. Breast cancer survivors often experience significant changes in their appearance due to surgery, chemotherapy-induced hair loss, weight changes, and changes in skin tone. These alterations can lead to body image disturbances. The initial shock of a breast cancer diagnosis, combined with treatments like chemotherapy, mastectomy, and radiation, can trigger emotional distress (Modibbo & Inuwa, 2020; Iqbal & Mehmood, 2024; Marino et al., 2024). Survivors often live with ongoing fear and anxiety about cancer returning, which contributes significantly to psychological distress (Large, 2018; Musa, 2024). The presence or absence of support from family and social networks can impact distress levels. Insufficient support is linked to increased anxiety and depression (Akbar & Hayat, 2020; Yang et al., 2024).

### 1.1. Relationship between Psychological Distress and Body Image Disturbances

Breast cancer treatment, while life-saving, can have profound physical, emotional, and psychological effects on women. Among these effects, psychological distress and body image disturbances are two critical areas that significantly impact the quality of life of breast cancer survivors. Understanding the relationship between psychological distress and body image disturbances is vital to improving post-treatment care and enhancing overall well-being. Studies show that psychological distress is prevalent among breast cancer survivors. Approximately 30-40% of women diagnosed with breast cancer report experiencing elevated levels of distress. This can persist for years following treatment (Clark, 2017; Rehman & Malik, 2020). Psychological distress can lead to body image disturbances. For instance, anxiety and depression associated with cancer treatment can heighten dissatisfaction with one's body, especially if the survivor's physical changes are seen as negative (Large, 2018; Khan, 2020). Body image disturbances can contribute to psychological distress. Survivors who perceive themselves as less attractive or less feminine may feel depressed, anxious, or socially withdrawn, creating a cycle of emotional distress (Large, 2018; Raja & Iqbal, 2019; Anees & Yan, 2019). Factors such as age, relationship status, and the presence of physical symptoms of cancer (like hair loss or scarring) can moderate the relationship. Younger women or those with fewer support systems tend to experience greater body image disturbance and psychological distress (Savas et al., 2020; Audi & Roussel, 2024).

### 1.2. Statement of the Problem

Breast cancer is one of the most common cancers affecting women globally, and its treatment often includes surgery, such as mastectomy or breast-conserving surgery, which can have profound physical, emotional, and psychological consequences for

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survivors. While medical advancements have greatly improved survival rates, the psychological distress and body image disturbances experienced by breast cancer survivors remain significant challenges. Many survivors report ongoing issues with body image, self-esteem, and psychological well-being, which can be exacerbated by the visible changes in their physical appearance after surgery. The trauma of surgery, combined with the societal pressures to conform to idealize body images, can lead to feelings of inadequacy, anxiety, depression, and social withdrawal. Despite these challenges, there is limited understanding of how surgery itself contributes to these psychological effects and the long-term impact on survivors' mental health. This study seeks to investigate the specific role that different types of breast cancer surgeries play in shaping psychological distress and body image disturbances among breast cancer survivors. By identifying the psychological mechanisms at play and understanding the factors that influence body image perception post-surgery, this research aims to develop better support systems and interventions tailored to addressing these emotional and psychological concerns. It is essential to bridge the gap between medical recovery and psychological well-being, as an understanding of these factors could improve the quality of life for breast cancer survivors.

### **1.3. Rationale of the Study**

The diagnosis of breast cancer often induces significant emotional and psychological distress. The fear of mortality, the unpredictability of the disease, and the effects of aggressive treatments (like chemotherapy, radiation, and surgery) can lead to long-term psychological consequences, including depression, anxiety, and post-traumatic stress disorder (PTSD). Many survivors face ongoing psychological distress well after the completion of treatment. The chronic emotional burden, coupled with the uncertainty of cancer recurrence, remains a crucial area of research. Breast cancer surgery, especially mastectomy (the removal of one or both breasts), can lead to significant body image disturbances. This may manifest as feelings of unattractiveness, loss of femininity, or sexual dysfunction. These issues can significantly impact a survivor's quality of life, self-esteem, and sense of identity. The change in physical appearance due to surgery can lead to challenges in adapting to new body image perceptions. This can also affect survivors' relationships, social interactions, and their mental well-being. The surgical removal of breast tissue, reconstruction choices, and post-operative scarring all contribute to body image disturbances. The type of surgery (e.g., mastectomy versus breast-conserving surgery) can result in different levels of psychological and body image-related consequences. The rationale for this study emphasizes the need for a holistic approach to breast cancer survivorship, acknowledging that physical recovery should be paralleled with emotional recovery. The findings could contribute to creating comprehensive care plans for survivors that include psychological care as a fundamental aspect of their post-cancer treatment. This study is significant because it aims to deepen the understanding of how breast cancer surgery influences psychological distress and body image, offering insights that could lead to improved emotional support for survivors and more effective, personalized treatment strategies.

### **1.4. Objectives of the Study**

- To measure the relationship between psychological distress and body image among breast cancer survivors
- To compare the mean score of depression, anxiety, stress and body image between married and unmarried breast cancer survivors

## **2. Significance of the study**

Breast cancer treatments, especially surgery (e.g., mastectomy or breast reconstruction), can have profound psychological effects on survivors. The study can help to clarify the specific ways in which these treatments contribute to emotional distress, depression, anxiety, and body image issues, which may be overlooked in medical care that predominantly focuses on physical recovery. Psychological distress, including anxiety and depression, is common among breast cancer survivors. This study can highlight how these factors influence survivors' quality of life and overall well-being, emphasizing the need for more comprehensive mental health support in cancer care. By understanding the unique psychological challenges faced by these individuals, healthcare professionals can better tailor their interventions. Body image disturbances are a significant issue following surgery for breast cancer, particularly when the surgery leads to visible changes, such as mastectomies. This study could shed light on how body image is altered post-surgery and how these changes affect survivors' self-esteem, relationships, and social interactions. It can guide the development of interventions to help women rebuild a positive body image after surgery. Many studies focus on the immediate effects of breast cancer treatments, but this study can look at the long-term psychological effects that continue to affect survivors even years after surgery. This is crucial for developing long-term support strategies, helping individuals adjust to life after cancer in a way that is both physically and psychologically healthy. Identifying the specific psychological difficulties and the role surgery plays will allow the creation of better support systems for survivors. These could include counseling, support groups, and interventions aimed at improving body image and reducing distress, contributing to better long-term recovery and quality of life. The study could also help raise awareness about the psychological dimensions of breast cancer recovery, which are often overshadowed by the focus on the physical aspects of the disease. This can lead to broader social recognition of the mental health challenges faced by breast cancer survivors, facilitating social support, policy changes, and more empathetic healthcare environments. In essence, the study holds significance by not only enhancing our understanding of the psychological challenges faced by breast cancer survivors but also paving the way for better-tailored care that addresses both emotional and physical recovery, ultimately improving survivors' overall well-being and quality of life.

## **3. Method**

### **3.1. Participants**

Correlational research design was used to conduct this quantitative research. Survey was administered with closed ended questionnaires as method of data collection. Purpose sampling technique was employed to select the sample of study 50 (married=31, unmarried=19) breast cancer survivors.

### **3.2. Instrument**

**Psychological distress:** Psychological distress was assessed using the 21-item Short Form of accurate and reliable DASS-21 (Henry & Crawford, 2005). The three subscales of the DASS 21 assess depression, anxiety, and stress (i.e., nervous tension and irritability, which are factorially distinct from depression and anxiety). Participants scored questions such as “*I thought that as a person I wasn’t worth much*” (from “0”=did not apply to me at all to “3”=applied very much to me or most of the time). A total score out of 21 was determined for each subscale and then multiplied by 2 to be equivalent to the full-scale DASS scores. At least 10 (depression), 8 (anxiety), and 15 (stress) ratings indicated psychological distress levels for each item. Distress severity was categorized as mild, moderate, severe, and very severe. Severity scores for depression were categorized as mild (10-13), moderate (14-20), severe (21-27), and very severe (28+). Anxiety scores were rated as mild (8-9), moderate (10-14), severe (15-19), and very severe (20+). Stress was scored as mild (15-18), moderate (19-25), severe (26-33), and very severe (34+). For all subscales ( $\alpha=0.92$  for depression;  $\alpha=0.79$  for anxiety;  $\alpha=0.89$  for stress), the item reliability for this scale was high.

**Body image:** The 10-item Body Image Scale was developed as a unitary measure of body image distress, including influence, actions, and cognition, and has been commonly used in oncology contexts (Hopwood et al., 2001). Participants assessed the degree to which they agreed with statements on a 4- point Likert scale, such as “*Did you feel self-conscious about your appearance?*” (0=Not at all to 3=Very much). The total summary scores ranged from 0 (no distress) to 30 (high body image distress). This scale demonstrates high reliability ( $\alpha = 0.93$ ) of the item, strong clinical validity, and alteration sensitivity. In the current analysis, the item reliability of this scale was high ( $\alpha = 0.94$ ).

#### 4. Results

**Table 1: Correlation matrix of Depression, Anxiety, Stress and Body Image Disturbance among breast cancer survivors**

	Mean	Std.Deviation	D	A	S	BID
Depression	6.6524	4.98724	1	.651**	.701**	.769**
Anxiety	9.2536	7.09321		1	.597**	.572**
Stress	5.9810	2.94321			1	.791**
Body Image Disturbance	7.0921	3.99312				1

Note; Depression, A (Anxiety), S (Stress), BID (Body Image Disturbance).

Table 1 shows the significant positive relationship between psychological distress and body image disturbance among breast cancer survivors. Results depict that psychological distress is significant positive predictor of body image disturbance.

**Table 2: Mean score difference of Depression, Anxiety, Stress and Body Image Disturbance with respect to breast cancer survivors’ marital status (n=50)**

Variable	Marital Status	N	M	Std.Deviation	df	t-test	p-value
Depression	Married	31	11.9765	9.03218	48	11.091	<.001
	Unmarried	19	17.0321	7.05342			
Anxiety	Married	31	23.0921	11.09543	48	17.036	<.001
	Unmarried	19	31.7854	13.90132			
Stress	Married	31	18.0932	7.02313	48	7.521	<.001
	Unmarried	19	27.9021	14.81329			
Body Image Disturbance	Married	31	13.0120	6.09120	48	12.901	<.001
	Unmarried	19	19.0027	10.08127			

Table 2 describes the mean score comparison of depression, and anxiety, stress and body image disturbance. Findings of the study reveal that there is statistically significant mean score difference depression, anxiety, stress and body image disturbance. Unmarried breast cancer survivors report higher score of psychological distress and body image disturbance as compared to married.

#### 5. Discussion

Findings of study reveal that there is positive correlation between psychological distress and body image disturbance. Moreover, depression, anxiety and stress are the significant positive predictors of body image disturbance. BC survivors experience high rates of depression, anxiety, stress, and body image dissatisfaction. Factors such as financial inadequacy and fear of recurrence may contribute to psychological distress in this population. Our findings are consistent with those of many studies (Przedziecki et al., 2016). Most patients had mild depression, anxiety, and stress. Burgess et al. (2005) reported that an estimated 30-45% of women with BC experienced substantial psychological morbidity, including anxiety and depression, within the first 2 years of survivorship. Furthermore, unmarried breast cancer survivors report higher score of psychological distress and body image disturbance as compared to married. Depression, anxiety, stress, and body image issues are common among BC survivors. Follow-up management plans for BC survivors should also include evaluation and treatment of psychological distress and addressing body image disturbances in patients undergoing mastectomy. The initial shock of a breast cancer diagnosis, combined with treatments like chemotherapy, mastectomy, and radiation, can trigger emotional distress (Marino et al., 2024). Survivors often live with ongoing fear and anxiety about cancer returning, which contributes significantly to psychological distress (Large, 2018). The presence or absence of support from family and social networks can impact distress levels. Insufficient support is linked to increased anxiety and depression (Yang et al., 2024). Approximately 30-40% of women diagnosed with breast cancer report experiencing elevated levels of distress. This can persist for years following treatment (Clark, 2017). Psychological distress can lead to body image disturbances. For instance, anxiety and depression associated with cancer treatment can heighten dissatisfaction with one’s body,

especially if the survivor's physical changes are seen as negative (Large, 2018). Body image disturbances can contribute to psychological distress. Survivors who perceive themselves as less attractive or less feminine may feel depressed, anxious, or socially withdrawn, creating a cycle of emotional distress (Large, 2018). The current study considered a few points. First, psychological distress and body image issues are significant concerns among women diagnosed with BC even after the completion of treatment. Second, a lack of psychological support in resource-poor settings may cause unresolved psychological issues over time. Hence, oncology settings should be equipped with psychological aids for a person with BC. The limiting factors of the present study were the small sample size and the number of survivors in a single outpatient clinic. More longitudinal studies with larger populations are needed to confirm these findings. In addition, further research on breast implants is warranted to determine whether they improve BID. Furthermore, all survivors should be provided consistent psychological support during all phases of treatment, i.e., after diagnosis, during treatment, and post-treatment

## 6. Conclusion

Breast cancer survivors often experience considerable psychological distress, including anxiety, depression, and post-traumatic stress. The emotional challenges are heightened during the post-treatment phase, and many survivors continue to grapple with feelings of fear about recurrence and uncertainty about their future. Surgical procedures, such as mastectomy, can profoundly affect the survivors' perception of their bodies. This disruption of body image can lead to lowered self-esteem, body dissatisfaction, and even social withdrawal. Women may experience changes in their identity and femininity, which are often linked to their sense of body image. In conclusion, breast cancer survivors often face long-term psychological and body image challenges post-surgery, which can significantly impact their quality of life. Understanding these struggles and providing comprehensive support systems are essential for promoting their mental well-being and recovery.

## 7. Contribution of the Study

The research may highlight the extent to which psychological distress (such as anxiety, depression, or post-traumatic stress disorder) is prevalent among breast cancer survivors, especially following surgical interventions like mastectomy or breast reconstruction. It could explore factors such as fear of recurrence, loss of physical appearance, and changes in self-esteem. It likely delves into the impact of surgery on body image, particularly how the removal of breast tissue or reconstruction procedures can alter survivors' perceptions of their own bodies. Understanding how these changes affect self-esteem, social interactions, and emotional well-being is key for improving the quality of life post-surgery. The study may specifically focus on how different types of breast cancer surgeries (such as mastectomy vs. breast reconstruction) influence psychological distress and body image disturbances. It could identify whether reconstructive surgery helps alleviate distress or if some patients experience lingering psychological discomfort related to surgical outcomes. The findings could inform healthcare providers about the need for integrated psychological and psychosocial support services for breast cancer survivors, highlighting the importance of addressing emotional and body image concerns during and after treatment. By identifying the relationship between surgery and psychological well-being, the study can contribute to the development of tailored interventions, such as counseling, body image therapy, or peer support groups, to improve the mental health and quality of life of breast cancer survivors. The study contributes to the understanding of the psychological and emotional challenges faced by breast cancer survivors, with a particular focus on how surgery impacts their mental health and body image. It can guide healthcare providers in offering more holistic and patient-centered care

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