

EXPLORING THE RELATIONSHIP BETWEEN BODY IMAGE AND QUALITY OF LIFE AMONG WOMEN WITH BREAST CANCER

Anam Rafiq¹, Anita Perviaz², Syeda Tasneem Kausar³, Zunira Amir⁴

¹Post RN Superior University Department of Nursing Lahore.

²Post RN Superior University Nursing Campus Lahore

³Nursing Director, Superior University Department of Nursing, Lahore.

⁴Supervisor, Superior University Nursing Department, Lahore

¹anamrafique73@gmail.com, ²anitaperviaz987@gmail.com, ³sindy070766@gmail.com,

⁴zunairamir@gmail.com

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Corresponding Author: *

Anam Rafiq

Abstract

Background: Breast cancer is the most commonly diagnosed cancer among women worldwide and is associated with profound physical and psychological impacts. Changes in body image, influenced by surgical interventions and cancer treatments, can significantly affect the quality of life (QoL) in affected patients. Understanding these impacts is crucial for providing holistic and patient-centered care.

Aim: The aim of this study was to assess the effect of breast cancer diagnosis on body image and its subsequent impact on the quality of life among female patients undergoing treatment at Services Hospital and Mayo Hospital.

Methods: A cross-sectional, quantitative study design was adopted. A total of 170 female breast cancer patients were selected using convenience sampling. Data were collected through a structured questionnaire comprising demographic variables and validated scales assessing dimensions of body image (behavioral, social, psychological, and sexual) and quality of life (mental and physical well-being). Descriptive statistics, including means, standard deviations, skewness, and kurtosis, were used for analysis.

Results: The findings revealed that body image disturbances were significantly reported in behavioral and psychological domains. Respondents showed high levels of concern regarding social perception and sexual identity. Quality of life scores indicated a decline, particularly in mental well-being. All variables fell within acceptable skewness and kurtosis ranges, indicating normal data distribution.

Conclusion: Breast cancer significantly affects both body image and overall quality of life in female patients. Integrated psychosocial interventions are essential for supporting women throughout the cancer care continuum

INTRODUCTION

Major physical changes are experienced by breast cancer patients, and these changes can have impact

on their quality of life (QoL) and body image. Traditional body image studies of breast cancer only

focused body dissatisfaction. This study conducts to look how body image, both negative and positive and quality of life related (Kerry Ettridge et al; 2022).

Breast cancer is seen as a serious health issue for women, and it is becoming more prevalent in everywhere. It is required to do research to enhance their quality of life. In order to evaluate whether their quality of life is affected, this study was focused at the body image and self-esteem of breast cancer patient who undergoing breast reconstruction (Jang et al, 2023). Body image is an important factor in the quality of life of breast cancer patient who underwent breast reconstruction.

Currently, breast cancer is treated in a multidisciplinary manner using a variety of modalities depend on the type of tumor, size, stage and grade, the patient preference, and the tumor molecular profile. (pal et al; 2019; Eltahir et al; 2020). Breast cancer is one of the most prevalent form of cancer impacting women worldwide. Every year, one million new cases of breast cancer are reported worldwide and developing countries accounting for more than half of those cases. Rages between 9.5 to 50 reports per 100,000 women occur annually in Arab countries. It is one of leading cause of mortality for women worldwide as more than 400,000

deaths per year, with the majority of death occurring in developing nation. Survival rate of breast cancer patients has significantly increased early detection and innovative treatment options.

The average 5-year survival rate for breast cancer patients in affluent nations is over 85%, compared to 50% to 60% in underdeveloped nations. As a result of the higher life expectancy, the effects of treatment on patient's quality of life (QOL) have become increasingly apparent (Fetaini, 2020).

According to WHO estimates, one in eight women in Spain may develop breast cancer in their lifetime which have made breast neoplasia the most frequently diagnosed cancer in women (SEOM, 2020), which is significant public health issue (yazdani-charati et al, 2019). Despite this, early detection initiatives, preventive programmers, and treatment advancements have significantly reduced disease-related mortality in recants years. (Munck et al., 2018; SEOM, 2020). As a result, there is an increasingly focus on understanding and minimizing

the effects of diagnosis and therapies given on the Quality of life of women with breast cancer (Garca-SolbasE et al., 2021; Liu et al., 2018).

Methodology

The methodology of this study was structured to ensure a systematic and objective inquiry into the relationship between body image and quality of life among female breast cancer surgery patients. Guided by the positivist philosophy, the research adopted a quantitative, deductive approach using a cross-sectional design. Convenience sampling was employed to recruit a sample of 170 female patients from the breast clinics at Services Hospital and Mayo Hospital. The structured questionnaire used for data collection was adapted from Zhou et al. (2018), encompassing two main variables: body image and quality of life. Body image was measured through indicators such as social, behavioral, sexual, and psychological changes, while quality of life was assessed through physical and mental well-being. The questionnaire was divided into two primary parts: the first section gathered demographic information including age, marital status, cancer stage, and educational level; the second section focused on the core study variables. The design ensured clarity and relevance for participants while maintaining ethical standards. Data collection was conducted personally, ensuring participant consent and confidentiality. Each item was designed to capture participants' subjective experiences and perceptions following breast cancer surgery. The study's population was specifically defined to include only those who had undergone surgical treatment for breast cancer, enhancing the study's focus. Analysis of the responses was intended to provide insight into how alterations in body image influence physical and emotional health outcomes in the post-surgical period. By using standardized measurement tools, the research-maintained objectivity and comparability with existing literature on the topic.

Data collection

First of all, permission was obtained from the institute for data collection. A total of 170 questionnaires were distributed among patients admitted in Mayo Hospital and services hospital Lahore. Participant was assured about the

confidentiality of the response in that findings were reported as to collect data only. They were counseled that participation is done by there on choice and we are not forcing the participants we were just requesting them to give their kind opinion.

Data analysis

Data collected subjected to statistical package for the social sciences for data analysis. The IBM SPSS is a statistical software that facilitate a better understanding of data and which enables individuals to access study outcomes of interest (IBM, 2015). The statistical tool provides opportunities for user to perform both quantitative and inferential analysis of the given data. First of all, frequency analysis was performed to obtain the demographic characteristics of the participants. Then, quantitative statistics were

also performed to know the data normality. Additionally, inferential statistics were also performed on data. Secondly, Regression was performed to test the relationship between the Independent and dependent variables. Result was providing in chapter 4.

Results and Analysis

The demographic analysis revealed that the majority of participants (79.4%) were diagnosed with breast cancer, and most were married (89.4%). The predominant age group was 36–40 years (51.2%), with a large portion holding intermediate education (40.6%). Regarding employment, 53.5% were employed, and the highest percentage of participants were in stage 2 of breast cancer (41.2%) [Table 1].

Table 1: Frequency Analysis of Demographic Variables (N = 170)

Demographic Variable	Category	Frequency (n)	Percentage (%)
CA Breast Status	Diagnosed	135	79.4
	Non-diagnosed	35	20.6
Marital Status	Married	152	89.4
	Single	18	10.6
Age Group	20–25	9	5.3
	26–30	9	5.3
	31–35	36	21.2
	36–40	87	51.2
	40+	29	17.1
Qualification	Intermediate	69	40.6
	Bachelor	21	12.4
	Master	15	8.8
	Others	65	38.2
Stage of Breast Cancer	1st	57	33.5
	2nd	70	41.2
	3rd	37	21.8
	4th	6	3.5
Employment Status	Employed	91	53.5
	Non-employed	79	46.5

The descriptive statistics show that participants reported the highest mean score in Change in Physical Well-being (M = 19.64, SD = 1.90), followed closely by Change in Mental Well-being (M = 15.92, SD = 2.31). Among body image components,

Behavior Change had the highest mean (M = 23.22, SD = 1.47), while Social Change had the lowest (M = 8.46, SD = 1.19). These results suggest physical and behavioral dimensions were more prominently affected [Table 2].

Table 2: Descriptive Statistics of Study Variables

Variable	Mean	Std. Dev.
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Body Image: Behavior Change (BIRTBC)	23.22	1.47
Body Image: Sexual Change (BIRTSC)	16.82	1.22
Body Image: Psychological Change (BIRTPC)	15.91	1.54
Body Image: Social Change (BIRSC)	8.46	1.19
Change in Mental Well-being (CMWB)	15.92	2.31
Change in Physical Well-being (CPWB)	19.64	1.90

The normality assessment through skewness and kurtosis shows that all variables fall within the acceptable range of ± 2 , indicating a normal distribution. Skewness values ranged from -0.837

(Social Change) to +0.139 (Sexual Change), while kurtosis ranged from -0.621 to +0.629. This supports the suitability of the dataset for further parametric statistical analyses [Table 3].

Table 3: Normality Test Results (Skewness & Kurtosis)

Variable	Skewness	Kurtosis
BIRTBC (Behavior Change)	-0.043	-0.621
BIRTSC (Sexual Change)	+0.139	-0.600
BIRTPC (Psychological Change)	-0.117	-0.597
BIRSC (Social Change)	-0.837	+0.629
CMWB (Mental Well-being)	-0.142	-0.455
CPWB (Physical Well-being)	-0.822	-0.012

The regression analysis revealed significant positive relationships between body image dimensions and well-being outcomes. Behavior change and sexual change significantly predicted mental well-being ($\beta = 0.42, p < 0.01$; $\beta = 0.36, p < 0.01$, respectively).

Similarly, psychological and social changes significantly influenced physical well-being ($\beta = 0.31, p < 0.05$; $\beta = 0.28, p < 0.05$). These findings suggest that improvements in body image perceptions are associated with better overall well-being [Table 4].

Table 4: Regression Analysis Summary

Independent Variable	Dependent Variable	Beta (β)	Significance (p)
Body Image (BIRTBC)	Mental Well-being (CMWB)	0.42	< 0.01
Body Image (BIRTSC)	Mental Well-being (CMWB)	0.36	< 0.01
Body Image (BIRTPC)	Physical Well-being (CPWB)	0.31	< 0.05
Body Image (BIRSC)	Physical Well-being (CPWB)	0.28	< 0.05

Discussion

The present study examined the impact of breast cancer diagnosis on body image and quality of life among female patients. Findings indicated that women experienced notable behavioral, psychological, sexual, and social changes due to body image disturbances following breast cancer diagnosis and treatment. These findings align with Zhou et al. (2018), who found significant reductions in self-perception and quality of life among breast cancer patients due to changes in physical appearance and emotional distress. Similarly, Budkaew and Chumworathayi (2013) reported that body image

issues are strongly tied to the psychosocial wellbeing of cancer patients, affecting their coping abilities and self-esteem.

When exploring sexual and psychological dimensions, this study found that patients commonly reported disturbances in their sexual relationships and emotional stability. These results are consistent with Choi et al. (2012), who emphasized the psychological burden breast cancer places on women, especially regarding intimacy and identity. Furthermore, Eke et al. (2017) showed that breast cancer survivors often face depressive symptoms due to altered body image and fear of

recurrence. However, contrary to some findings, this study observed slightly lower levels of psychological distress, possibly due to support systems provided in the hospital settings studied.

Regarding physical and mental well-being, this research observed moderate changes, which corresponds with Hernández-Cruz et al. (2017), who found that post-treatment fatigue and discomfort significantly affect patients' quality of life. Nevertheless, unlike Wakefield (2014), who stressed the long-term decline in physical functioning, the current study indicates a relatively high level of adaptation among participants. This may be attributed to differences in treatment phases, social support, or health literacy levels.

In comparing the stages of breast cancer, the study noted that women at advanced stages reported greater impacts on psychological and physical wellbeing. This aligns with findings by Kassa et al. (2014), who observed a correlation between cancer progression and diminished quality of life. Conversely, Khan (2017) emphasized that early palliative interventions could mitigate such outcomes, suggesting the importance of timely psychosocial support. Overall, the study highlights the multidimensional challenges of breast cancer and underscores the need for holistic care models that consider physical, emotional, and social aspects to improve patients' quality of life.

Conclusion

This study explored the effects of breast cancer diagnosis on the body image and quality of life of female patients undergoing treatment at Services Hospital and Mayo Hospital. The results reveal that a significant proportion of women experience negative changes in their behavior, psychological well-being, sexual relationships, and social interactions due to altered body image. Moreover, their physical and mental well-being is also affected, which collectively contributes to a decline in overall quality of life. The findings underscore the profound psychosocial impact of breast cancer that extends beyond the physical symptoms of the disease. These insights highlight the urgent need for integrating psychosocial support and body image counseling into routine cancer care to help patients adapt better and enhance their well-being throughout the treatment journey.

Recommendations

- 1. Integrate Psychosocial Support Programs:** Oncology units should implement structured psychological counseling and peer support groups to help patients manage the emotional and behavioral changes related to body image disturbances.
- 2. Enhance Patient Education:** Health professionals should provide comprehensive information about the potential physical and emotional effects of breast cancer and its treatments to prepare patients for upcoming changes and reduce anxiety.
- 3. Promote Multidisciplinary Care Models:** Hospitals should adopt a holistic care approach involving oncologists, psychologists, nurses, and physiotherapists to address the physical, psychological, and sexual health challenges faced by patients.
- 4. Include Body Image Therapy in Routine Care:** Therapies focusing on self-esteem, self-acceptance, and coping strategies related to body image changes should be routinely offered to patients undergoing surgery or chemotherapy.
- 5. Focus on Early Intervention:** Special attention should be given to patients in advanced stages of breast cancer to provide timely mental health support and improve their overall quality of life.
- 6. Encourage Further Research:** Future studies should consider longitudinal designs and diverse populations to explore how interventions influence long-term outcomes related to body image and quality of life among breast cancer survivors.

REFERENCES

- Bloom JR, Kessler L. Risk and Timing of Counselling and Support Intervention of Younger Women with Breast Cancer. 1994 (16): 199-206.

- Baxter NN, Goodwin PJ, McLeod RS, Dion R, Devins G, Bombardier C. Reliability and validity of the body image after breast cancer questionnaire. *Breast J.* 2006;12(3):221-32.
- Beck., A.T., Ward, C.H., Mendelson, M. Mock, J. and Erbaugh, J. (1961). An Inventory for measuring depression. *Archives a General Psychiatry.* 4, (561-571)
- Campbell-Enns H, Woodgate R. The psychosocial experience of women with breast cancer across the lifespan: A systematic Review Protocol. *JBIC Database System Rev Implement Rep.* 2015 Jan; 13(1) 112-21.
- Dusanee Suwankhong, Pranee Liamputtong *Cancer Nursing* 39 (3), 213-220, 2016.
- Ether, Y; Bosma, E; Teixeira, N; Werker, P.M; & de Bock, G.H. (2020). Satisfaction with cosmetics outcomes of breast reconstruction: investigation into the correlation between the patients Breast Qol outcome and the judgment of panel. *JPARS*, 24, 60- 70.
- Ettridge, K., Scharling-Gamba, K., Miller, C., Roder, D., & Prichard, I. (2022). Body image and quality of life in women with breast cancer: Appreciating the body and its functionality. *Body Image*, 40, 92-102
- Ganz PA, et al. Breast cancer Survivors: Psychosocial concerns and quality of life *Breast cancer Res Treat* 1996; 38(2):183-99.
- Gil-Olarte, P., Gil-Olarte, M. A., Gomez-Molinero, R., & Guil, R. (2022).
- Psychosocial and sexual well-being in breast cancer survivors undergoing immediate breast reconstruction: The mediating role of breast satisfaction. *European Journal of Cancer Care*, 31(6), e13686.
- Julienne E.Bower, *J. Clin Oncol.* Official Journal of Clinical Oncology. 2008 Feb 10; 26(5):768-777.
- Leslie R. Schover, *Cancer Journalist and Clinicians* vol 41, (2) 1991 Pg. 112-120
- SEOM: Las Cifras Del Cáncer En España. *Clinical translational and oncology*, 2018.
- Solikhah Solikhah Dyah Aryani Perwitasari and Dwi Sarwani Sri Rejeki *Front Public Health* 2023.
- Thakur, Monika; Sharma, Roopali; Mishra, Anand Kumar; Gupta, Bandna *Cancer Research*, Statistics, and Treatment 5(1): p 90-96, Jan - Mar 2022.
- Y Jang, M Seong, S Sok (2023). Influence of body image on quality of life in breast cancer patients undergoing breast reconstruction: Mediating of self-esteem. *Journal of Clinical Nursing*.