

# Body Image in Breast Cancer Survivors; A Systematic Scientific Review

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**Abstract:** ***Background:** Female breasts have not only physical and functional value but also have psychological bearing and are symbolic of womanhood. In breast cancer survivors, own body image may change due to physical and psychological reasons, worsening women's living. **Objective:** The purpose of this review is to synthesize the current state of the science for body image in women with breast cancer. **Methods:** Combinations of the terms "body image perception" "sexuality intervention" "women" "breast cancer" were searched in the PubMed and CINAHL through January 2012- 2022. Inclusion criteria for this review were (1) original research, (2) published in English from the year 2012 onwards (3) measuring body image as an outcome variable. **Results:** The majority of studies were cross-sectional, with extensive variation in body image assessment tools. Breast cancer survivors who undergo more extensive surgery have worse body image, compared with women undergoing less extensive surgery. Poorer body image was related to physical and psychological distress, sex and intimacy, and the partnered relationship among younger women. **Conclusions:** Findings suggest body image is a complex posttreatment concern for breast cancer survivors. The findings of this review are limited by the high level of variation in the methods for assessing body image.*

**Keywords:** body image perception, sexuality intervention, women survivors, breast cancer, psychological impact

## 1. Introduction

Breast cancer is the most common type of cancer globally<sup>[1,2]</sup> and the most common cause of cancer-related mortality among women worldwide.<sup>[2]</sup> In 2020, there were 2.3 million women diagnosed with breast cancer and 685 000 deaths globally.<sup>[3]</sup> Female breasts have not only physical and functional value but also have psychological bearing and are symbolic of womanhood and ultimate fertility. As a result, both disease and surgery of the breast evoke a fear of mutilation and loss of femininity besides being responsible for psychosocial behavioral problems.<sup>[4]</sup>

In addition to physical and psychological problems related to treatment, these women often face problems related to sexuality, including body image and related distress for this problem. Body image concerns in women have been attributed to loss of the breast from surgery, resulting in scarring, and physical changes resulting from adjuvant treatment, all of which can have an impact on the overall

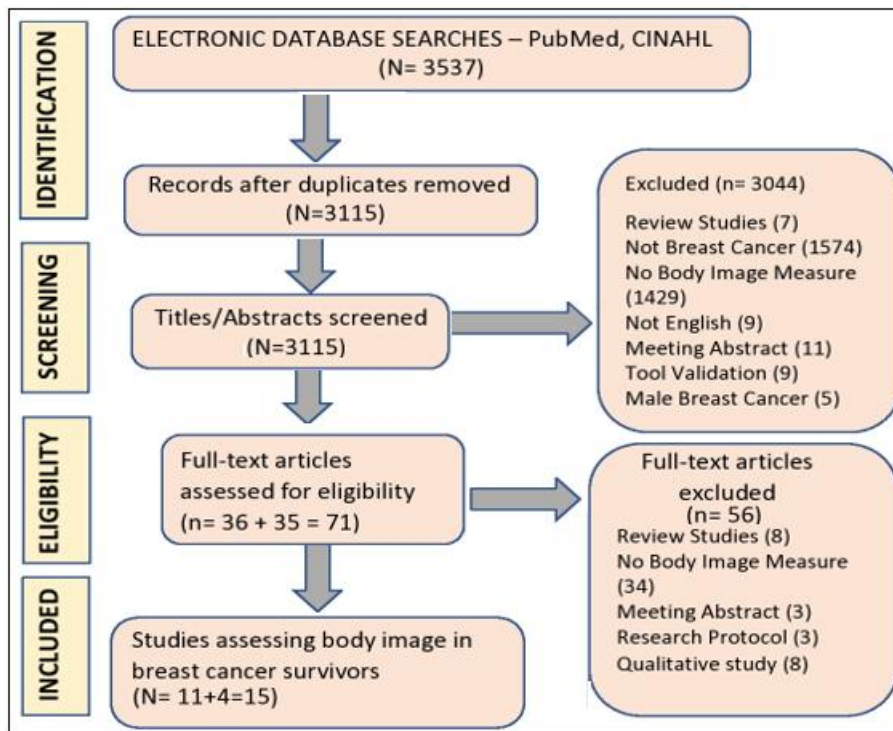
quality of life and, in particular, body image perceptions in women.<sup>5</sup>

## Objective

The objectives of this systematic review are to synthesize the current knowledge related to body image, with particular attention paid to the impact of body image disturbance and related distress in breast cancer survivors, and to provide directions for future research in this important survivorship area.

## 2. Material and Methods

Combinations of the terms "body image perception" "sexuality intervention" "women" "breast cancer" were searched in PubMed and CINAHL from January 2012-2022. The inclusion criteria for this review were (1) original research, (2) published in English from the year 2012 onwards (3) measuring body image as an outcome variable.



### 3. Results

- 1) Study Design.** A large portion of the articles included in this synthesis discussed cross sectional studies, with few longitudinal studies and 1 randomized controlled trial.
- 2) Participants.** A total of 2789 breast cancer survivors participated in the studies included in this synthesis. Participants ranged in breast cancer diagnosis from stages 0 to III and from immediately posttreatment to as many as 5 years posttreatment. The majority of studies were conducted in Brazil.
- 3) Measurement Tools Used to Assess Body Image.** There was a wide variation in assessment tools used to measure body image in these studies, which included a total of 6 different instruments. Among them, the most common was the European Organisation for Research and Treatment of Cancer - Breast Cancer Specific Quality-of-Life Module (EORTC-QLQ-BR23) which was utilized in 8 studies; the Body Image Scale (BIS) used in 3 studies; the Body Dysmorphic Disorder Examination (BDDE), the Body Image Self-Rating Questionnaire for Breast Cancer (BISQ-BC) developed by Zhou et al, The Body Scale Inventory (BSI; Hopwood, Fletcher, Lee & AlGhazal, 2001) were used in 1-1. There was also 1 study that utilized an investigator-created questionnaire specifically developed for their study.
- 4) Body Image and Treatment Type –** Many of the studies in this synthesis had findings related to the impact of treatment on body image including surgery type and chemotherapy. No study was found related to radiotherapy. Surgery type was found to have an impact on body image satisfaction in 5 of the studies. **In 2 studies**, it is noted that a radical mastectomy was related to lower body image. Patients who had undergone breast reconstruction after mastectomy reported better body image.<sup>10,11</sup> According to **1 study**, there is similar body image perception at preoperative evaluation and at the 60- and 90-day postoperative

assessments.<sup>12</sup> Chemotherapy treatment was also found to have a negative impact on body image among women.<sup>13,14,15</sup>

- 5) Psychological and Physical Symptoms and Body Image in Women -** There was a positive correlation of the emotional functioning variable with the assessment of body image ( $p = 0.007$ ).<sup>16</sup> The association between body image and mental well-being was much stronger in urban subjects ( $b = - 0.38, p < 0.001$ ) than in rural subjects ( $b = - 0.20, p < 0.001$ ).<sup>17</sup> Depression and anxiety had a positive and moderate correlation with Body image. Women with major alterations in their body image presented higher levels of depression and anxiety.<sup>18,15</sup> Greater use of denial coping was associated with longer concern with body image. Greater use of humor was associated with a better image.<sup>18</sup>
- 6) Demographic variables and Body image in women -** Body image had a significant association with age ( $p=0.000$ ), occupation ( $p=0.003$ ), education ( $p=0.000$ ), use of prosthesis ( $p=0.000$ ), and co-morbidity ( $p=0.000$ ).<sup>19</sup>
- 7) Sexuality and Body image in women -** The educational and counselling intervention program based on a socio-psychological model (GES) was effective in improving the body image among women surviving breast cancer.<sup>20</sup>

### 4. Conclusion

Results of this review showed that body image concerns are prevalent among women, with treatment type, including greater concerns among survivors related to surgery types (mastectomy vs mastectomy reconstruction) and adjuvant treatment. Body image disturbance clearly has the potential to cause difficulties in recovery from breast cancer.

The review identified body image disturbance as a significant issue for breast cancer survivors, but further research and

well-designed randomized design trials using validated and reliable measures of body image are necessary to determine which interventions would be most effective in reducing body image disturbance and improving the quality of life of these women as they transition into survivorship.

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