# Body Image and Quality of Life in Advanced Breast Cancer: The State of the Science

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**Abstract**

**Background:** Breast cancer is the most commonly diagnosed cancer globally and the second leading cause of death among US women. Advanced breast cancer (ABC) may lead to significant physical changes like fungating tumors, which can deeply affect body image and quality of life (QOL). Despite the prevalence of body image issues in patients with cancer, few studies examine these issues in the ABC population. Understanding this relationship is crucial to addressing patients' psychosocial needs and improving overall QOL. **Methods:** A systematic review following Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines was conducted to assess the impact of body image on QOL in ABC patients. Searches in PubMed, Embase, and PsycInfo yielded four studies that met inclusion criteria, including both qualitative and quantitative designs. **Results:** The studies revealed that body image disturbances contribute to emotional distress, diminished intimacy, and social isolation. Quantitative studies showed statistically significant correlations between body image dissatisfaction and lower QOL, with greater body appreciation associated with improved emotional and cognitive functioning. **Conclusion:** Body image significantly influences QOL in ABC patients, but research in this area remains limited. Further studies are necessary to understand this relationship and develop interventions that address body image concerns, potentially improving QOL for this underserved population.

Patients with breast cancer endure physical and emotional sequelae that can have an impact on overall quality of life (QOL; Stein et al., 2008; Sanson-Fisher et al., 2012; Favez et al., 2021). Specifically, body image throughout the course of a disease can fluctuate, causing significant psychosocial stress (Frierson et al., 2006; Campbell-Enns & Woodgate, 2015; Shimozuma et al.,

2019; Thakur et al., 2022; Wu et al., 2021). Additionally, the psychosocial stress from treatment-related changes can impact QOL (Álvarez-Pardo et al., 2023). Studies examining body image and its impact on QOL have mainly focused on individuals with early-stage breast cancer exclusive of patients with advanced breast cancer (Parker et al., 2007; McClelland et al., 2015; Hopwood et al., 2001). The lack of body image and QOL studies within this population creates a knowledge gap. Determining the impact of body image on QOL among patients with advanced breast cancer is essential to understanding psychosocial needs throughout the course of the disease. Thus, this review aims to assess the impact of body image on QOL in the advanced breast cancer population.

## BACKGROUND AND SIGNIFICANCE

Breast cancer is the most commonly diagnosed cancer and the second leading cause of death in women in the United States, with about 42,170 women dying each year from the disease (American Cancer Society, 2025). About 316,950 new cases of invasive breast cancer will be diagnosed in women in 2025, accounting for about 30% of all new female cancers each year (American Cancer Society, 2025). Unfortunately, 6% of women already have metastatic breast cancer when they are initially diagnosed (SEER, 2025).

Once a disease is metastatic, the goal of treatment transitions from a curative intent to a palliative one. Advanced breast cancer can significantly alter one's appearance in the form of a fungating breast wound or tumor, also known as locally advanced breast cancer (LABC; Sood et al., 2015). These tumors are typically treated using a surgical, medical, or radiation approach; however, it is possible that the patient is not a surgical candidate due to the nature of the tumor growth, or the tumor is resistant to systemic or radiation therapy (Badwe et al., 2015; Rupert & Fehl, 2020; Mehraj et al., 2021). These tumors are often malodorous, infected, and possibly bleeding, which further complicates management of the tumor and can greatly affect one's body image and QOL (Perry et al., 2007; Osório et al., 2023). The prevalence of patients with breast cancer affected by poor or negative body image can range from 31% to 74.8% during or after cancer treatments, making it a notable symptom (Zhao et al., 2023).

Body image and QOL are not new concepts within the breast cancer population; however, these concepts are not routinely studied in individuals with advanced breast cancer. While multiple definitions have been provided throughout the literature, body image can be summarized as the perception of one's physical appearance (Cash et al., 2005; Fingeret et al., 2013b; Guedes et al., 2018; Ghaffari et al., 2020). Additionally, QOL has increasingly become an area of interest in research studies involving the cancer population and includes the physical and psychosocial aspects of one's well-being (Perry et al., 2007). Quality of life has been studied for decades and continues to be an important area of research in the cancer population (Wood-Dauphinee, 1999). Begovic-Juhant and colleagues (2012) conducted a study among breast cancer patients who completed treatments and found most women reported some type of dissatisfaction with their body image.

Body image and the impact on QOL in the advanced breast cancer population has not been routinely studied, leaving this group vulnerable to missed opportunities for psychosocial support (Maunsell et al., 1989; McClelland et al., 2015; Liu et al., 2022; Heidary et al., 2023). Brunet and colleagues (2013) suggested desensitization to one's body image in patients with breast cancer as a reason for the lack of inclusion in body image studies; however, it is unclear if there is sufficient evidence to support this. Additionally, the impact of body image on QOL may be experienced differently in the continuum of breast cancer. Early-stage individuals may experience acute distress over body changes, while those with advanced cancer may face a more complex interplay of physical, emotional, and existential concerns, with body image concerns becoming part of a broader struggle with disease progression and end-of-life considerations (Institute of Medicine and National Research Council, 2024). Research has demonstrated that diseases like head and neck cancers highlight the influence of body image on QOL, offering insights that could be useful in understanding the experiences of the advanced breast cancer population (Dropkin, 1999; Fingeret et al., 2012; Fingeret et al., 2013a; Davidson & Williams, 2019).

## THEORETICAL FRAMEWORK

### Conceptual Framework

An and colleagues (2022) developed a conceptual framework that integrates body image and QOL in breast cancer survivors. This framework was used to guide the data extraction process and synthesis. According to this framework, body image is defined as the individual's self-perception, attitude, and behaviors that may impact other areas such as social, behavioral, sexual, psychological, and role changes. Quality of life is described as having two domains: physical well-being and mental well-being. Physical well-being focuses on the individual's perceived physical function, pain, and physical limitations, while mental well-being encompasses emotional and mental health (An et al., 2022).

The authors suggest that while the two constructs of body image and QOL are closely related, they remain distinct constructs. The framework also incorporates the understanding that premorbid factors such as an individual's socioeconomic status, access to health-care services, and psychological factors, as well as various cancer treatments, can have a significant impact on both body image and QOL. For example, clinical stage and treatments like surgery, chemotherapy, and radiation, can alter body image by causing visible changes to the body, which in turn may affect an individual's physical and emotional well-being. This approach emphasizes the need to consider both body image and QOL holistically in order to fully understand the experiences of breast cancer survivors.

### Application of the Conceptual Framework

Many studies focus on body image and QOL in early-stage breast cancer, and there is limited literature available to support the assumption that the advanced breast cancer population becomes desensitized to their body image as the disease progresses. Instead, breast cancer in the form of locally advanced breast cancer (e.g., fungating breast wounds) may increase body image disturbances due to the disfigurement and physical complexity of the cancer (malodor, bleeding, etc.), ultimately impacting QOL. It is important to understand these constructs in this population so that the appropriate interventions can continue to be offered throughout the progression of the disease as opposed to just the early-stage or survivor groups (An et al., 2022).

An and colleagues (2022) suggest the conceptual framework can be utilized to study the associations between these constructs in future research. Application of this conceptual framework has been observed in studies attempting to understand body image and the relationship to other psychosocial outcomes, such as self-esteem, sexuality, and QOL (An et al., 2022; Álvarez-Pardo et al., 2023). This conceptual framework was applied to review the impact of body image on QOL in the advanced breast cancer population, as this group is often excluded from studies involving these two constructs (Brunet et al. 2013; McClelland et al., 2015). For the purposes of this review, sociodemographic and treatment modalities were not addressed; however, these areas may provide further insight into existential factors that may influence body image and should be considered for future areas of research.

## METHODS

### Design

A systematic review was performed using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines to examine the impact of body image on QOL in the advanced breast cancer population (Moher et al., 2009). Librarians assisted in the development of the search terms and strategy. The literature search was conducted using three databases: PubMed, Embase, and PsycInfo. The terms "body image" and "quality of life" along with related keywords and MeSH terms were used to conduct the literature search (Table 1). The searches were conducted from September through October 2023.

### Inclusion Criteria

Studies were included if they were in English, original research with human subjects, adults (18 years and older), and published within the last 10 years to obtain the most relevant information. Any relevant research studies found in reference lists of the accepted studies were also included. Studies that were not in English, only included one of the two constructs (body image and QOL), or did not include the population of interest (metastatic breast cancer) were excluded. Articles that discussed early-stage breast cancer or focused on effects of treatment (surgery, chemotherapy, radiation, etc.) were excluded.

**Table 1. Syntax for Literature Search**

| Database | Search terms |
|---|---|
| PubMed | ((Body Image[MeSH] OR body image[tiab] OR body images[tiab] OR body identity[tiab] OR body representation[tiab] OR body representations[tiab] OR body disturbance[tiab] OR body disturbances[tiab] OR body distortion[tiab] OR body distortions[tiab]) AND (Breast Neoplasms[MeSH] OR breast cancer[tiab] OR breast cancers[tiab] OR breast tumor[tiab] OR breast tumors[tiab] OR breast tumour[tiab] OR breast tumours[tiab] OR breast neoplasm[tiab] OR breast neoplasms[tiab] OR breast carcinoma[tiab] OR breast carcinomas[tiab] OR LABC[tiab])) AND (Quality of Life[MeSH] OR life quality[tiab] OR quality life[tiab] OR "quality of life"[tiab] OR HRQOL[tiab] OR QOL[tiab]) |
| Embase | ('body image'/exp OR ('body image':ab,ti OR 'sexuality':ab,ti OR 'body dissatisfaction':ab,ti)) AND ('quality of life'/de OR ('quality of life' OR 'qol' OR 'health related quality of life' OR 'hrql' OR 'hrqol' OR 'life quality' OR 'quality of life':ab,ti) OR (qualit* NEAR/2 life*):ab,ti,kw) AND ('metastatic breast cancer'/mj OR ('breast cancer metastases':ab,ti OR 'breast cancer metastasis':ab,ti OR 'breast carcinoma':ab,ti OR 'metastatic breast':ab,ti OR 'metastatic breast carcinoma':ab,ti OR 'secondary breast cancer':ab,ti OR 'secondary metastatic breast cancer':ab,ti OR 'stage 4 breast cancer':ab,ti OR 'stage 4 metastatic breast cancer':ab,ti OR 'stage iv breast cancer':ab,ti OR 'stage iv metastatic breast cancer':ab,ti OR 'metastatic breast cancer':ab,ti OR 'locally advanced breast cancer':ab,ti OR 'fungating breast wound':ab,ti OR 'fungating breast tumor':ab,ti)) AND [2013-2023]/py AND [english]/lim |
| PsychInfo | (("body image" or "body dissatisfaction") and ("quality of life" or "qol" or "health related quality of life") and ("breast cancer" or "breast neoplasm" or "breast tumor" or "locally advanced breast cancer" or "advanced breast cancer" or "metastatic breast cancer")).mp. |

*Note.* LABC = locally advanced breast cancer; HRQOL = health-related quality of life; QOL = quality of life; MeSH = Medical Subject Headings; tiab = title or abstract; ab = abstract; ti = title; de = descriptor (controlled vocabulary term); mj = major topic heading; kw = keyword; NEAR/2 = proximity operator indicating terms appear within two words of each other; py = publication year; lim = limit; mp = multi-purpose (title, abstract, heading word, table of contents, key concepts, original title, tests and measures, MeSH word).

### Coding and Verification

There were 229 articles identified. After applying exclusion criteria and removing duplicates, 4 articles were included in the review (Figure 1). The code sheet developed by the primary author was used to analyze the articles that met the inclusion criteria. A blank code sheet and article titles were then provided to an interrater for verification. The interrater was a licensed family nurse practitioner who practiced in the breast cancer center with the primary author. The interrater and primary author independently extracted data into the code sheets. Once the individuals completed code sheets for each article, the primary author and interrater met virtually to review and discuss discrepancies. One article was excluded that did not meet inclusion criteria; metastatic breast cancer patients, while discussed, were not included in the results.

## RESULTS

### Included Studies

A summary of the characteristics of the studies that met inclusion criteria can be found in Table 2. Two of the studies used a qualitative design (Mosher et al., 2013; Krigel et al., 2014), while the remaining two used a quantitative design (McClelland et al., 2015; Ettridge et al., 2021). All studies were published between 2013 and 2021. Among the four studies, there were a total of 295 participants, all of whom were women. Sample sizes ranged from 15 to 123 participants. Three studies were conducted in the United States while one study was conducted in Australia. All four studies discussed the time since diagnosis of breast cancer; however, one study did not explicitly indicate if the participants had advanced breast cancer (Ettridge et al., 2021). Three of the four studies provided a thorough description of the participants' race (Mosher et al., 2013; Krigel et al., 2014; Ettridge et al., 2021). One study generalized the participants' race as "mostly White" (McClelland et al., 2015, p. 2,942). The age of participants in the studies ranged from 30 to 88 years.

### Quality Appraisal

Three publications included both body image and QOL variables, while a fourth publication only focused on body image (Mosher et al., 2013; Krigel et al., 2014; McClelland et al., 2015; Ettridge

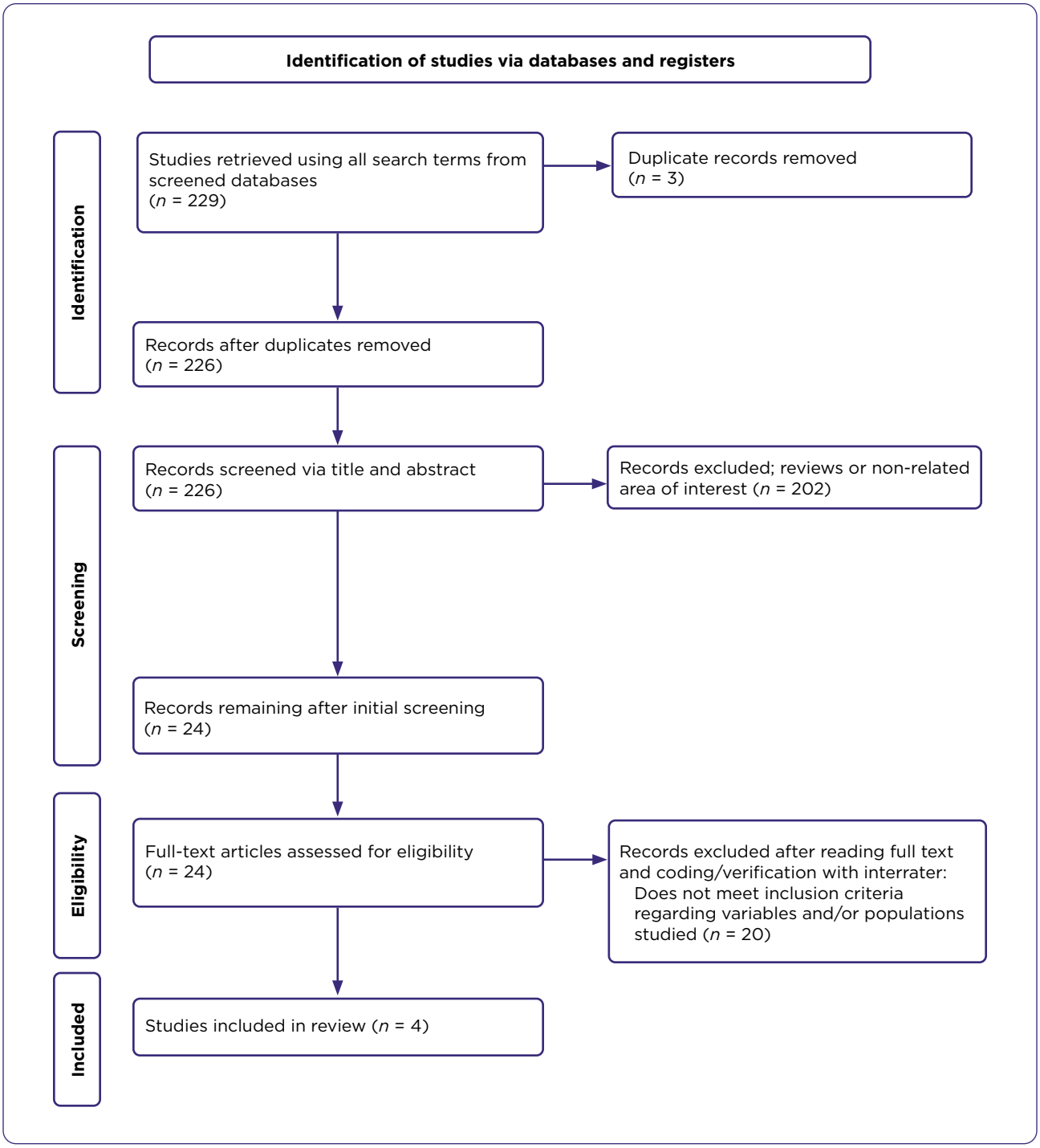


**Figure 1.** PRISMA flow diagram. Adapted from Moher et al. (2009).

**Table 2. Characteristics of Included Studies**

| Author(s), date | Purpose of study | Study design | Sample/ setting | Characteristics | Quality of study[a] |
|---|---|---|---|---|---|
| Mosher et al., 2013 | Examine concerns among metastatic breast cancer patients that include physical/emotional distress along with social functioning | Qualitative; expressive writing intervention where the participants were randomly assigned to either expressive writing or neutral writing sessions over 4 to 7 weeks | *n* = 44<br>Advanced breast cancer<br>Memorial Sloan-Kettering Cancer Center | Women (*n* = 44)<br>Age range 58.1–61.4 years (mean = 57.9 years; SD = 1.4 years)<br>Caucasian (*n* = 38)<br>African American (*n* = 2)<br>Asian (*n* = 2)<br>Other (*n* = 2)<br>Education ≥ 12 years (*n* = 5)<br>Some college (*n* = 9)<br>College or graduate degree (*n* = 30)<br>Time since diagnosis of stage IV breast cancer, mean = 4.1 years | High |
| Krigel et al., 2014 | Explore lived experiences of women with metastatic breast cancer to inform development of interventions to enhance survivorship care for women with advanced disease | Qualitative; four semi-structured focus groups were conducted with women with metastatic breast cancer | *n* = 15<br>Advanced breast cancer<br>One metro area and two rural communities in midwestern US | Women (*n* = 15)<br>Age range 32–75 years (mean = 56.8; SD = 12.38 years)<br>White, non-Hispanic (*n* = 14)<br>Time since diagnosis of metastatic disease 35 months (mean = 34.8; SD = 44.08 months) | Medium |
| McClelland et al., 2015 | Identify factors affecting quality of life in a sample of patients diagnosed with metastatic breast cancer, with particular attention to body image, disease site, and time since diagnosis | Quantitative; cross-sectional | *n* = 113<br>Advanced breast cancer<br>University of Michigan | Women (*n* = 113)<br>Age range 30–84 years (mean = 58; SD = 11.61 years)<br>Race "mostly White"[b]<br>Mean time since diagnosis with metastatic breast cancer was approximately 3 years (mean = 36.11 months; SD = 39.56 months) | High |
| Ettridge et al., 2021 | Explore the association between both positive and negative body image and quality of life | Quantitative; cross-sectional | *n* = 123 within 5 years of diagnosis[c]<br>University of Adelaide (Australia) | Women (*n* = 123)<br>Age range 33–88 years (mean = 53.5; SD = 9.9 years)<br>Australians (75.6%)<br>Time since diagnosis of breast cancer (mean =2.4; SD = 1.4 years) | High |

*Note.* SD = standard deviation; QOL = quality of life.
[a]Quality appraisal completed using JBI Critical Appraisal tool for Qualitative Research and Quantitative Research studies.
[b]Not explicitly defined in article.
[c]Advanced breast cancer vs. early breast cancer were not clearly defined.

et al., 2021). The methodological quality of the articles was assessed using the Joanna Briggs Institute (JBI) critical appraisal tools for systematic reviews (Aromataris et al., 2015). Two of the quantitative articles and one qualitative article were considered high quality (Mosher et al., 2013; McClelland et al., 2015; Ettridge et al., 2021). One qualitative study was of medium quality (Krigel et al., 2014).

### Body Image and Quality of Life

Body image or other related terms (self-image, appearance, etc.) were discussed in all four studies. Three out of the four studies had varying definitions of body image, as seen in Table 3 (Mosher et al., 2013; Krigel et al., 2014; Ettridge et al., 2021). One study did not explicitly define body image (McClelland et al., 2015). All four studies discussed body image and the impact on other variables, such as QOL and intimacy. All four studies discussed QOL as a construct related to body image.

Of the two articles using a qualitative design (Mosher et al., 2013; Krigel et al., 2014), one study used an expressive writing intervention over 4 to 7 weeks in order to examine concerns of living with metastatic breast cancer (Mosher et al., 2013). In their study, Krigel and colleagues (2014) used four semi-structured focus groups to explore participants' lived experiences with metastatic breast cancer. The qualitative studies have common themes of body image disturbances, identity loss, loneliness, and loss of intimacy with their partner (Mosher et al., 2013; Krigel et al., 2014). Additionally, participants expressed a negative change in role functioning and decreased emotional functioning in both qualitative studies (Table 2).

The quantitative studies used a cross-sectional design (McClelland et al., 2015; Ettridge et al., 2021). Both quantitative studies had similar findings. McClelland and colleagues (2015) specifically noted that global QOL significantly increased as body image increased ($p = .04$), while Ettridge and colleagues (2021) showed statistically significant correlations between multiple body image variables (body image dissatisfaction was measured with the Body Image Scale [BIS] and body appreciation was measured with the Body Appreciation Scale-2 [BAS-2]) and various subcategories of QOL (e.g., physical functioning, emotional functioning; see Table 3). McClelland and colleagues (2015) identified other variables such as pain ($p = .01$) and fatigue ($p < .001$) that were associated with a decrease in QOL. The interaction between age and body image was a significant predictor of global QOL ($p = .02$; McClelland et al., 2015). The time since metastasis diagnosis and body image interaction was also significant ($p = .04$; McClelland et al., 2015).

## DISCUSSION

A systematic review methodology was used to determine what is known about the impact of body image on QOL in advanced breast cancer patients. The qualitative studies used an expressive writing intervention and semi-structured focus groups to explore experiences of living with metastatic breast cancer (Mosher et al., 2013; Krigel et al., 2014). These two qualitative studies reported similar findings of body image–related concerns impacting other aspects of the participants' lives, such as relationships, intimacy, functional status, and emotional well-being. Mosher and colleagues (2013) stated appearance changes in the women were sources of frustration and embarrassment for some of the study participants, which may impact QOL concerns. Additionally, Mosher and colleagues (2013) highlighted increased distress along with negative changes in functional status that may contribute to a decrease in overall well-being. Similarly, the participants in Krigel and colleagues' (2014) study described various aspects such as body image, emotional functioning, physical functioning, and social functioning (domains of QOL) as being impacted by their metastatic breast cancer diagnosis. Common themes of emotional distress, physical symptom burden, and social disruptions in all studies highlight the relationships between body image and overall QOL (Mosher et al., 2013; McClelland et al., 2015; Ettridge et al., 2021). The quantitative studies showed body image or different aspects of body image (body image dissatisfaction, body appreciation, and functionality appreciation) as having statistically significant correlations with various domains of QOL and other variables, such as pain and fatigue. These significant correlations suggest that body image influences QOL in the advanced breast cancer population (Table 3).

**Table 3. Results of Included Studies**

| Author, date | Body image description | QOL description | Other variables | Outcomes of study |
|---|---|---|---|---|
| Mosher et al., 2013 | Appearance concerns: scars, uneven breasts, hair loss, weight gain, lymphedema, black nails | Emotional distress: Emotional reactions to the cancer diagnosis and fear of progression (feelings of shock and isolation)<br>Physical symptom burden: Includes fatigue, pain, side effects of chemotherapy (hot flashes, sexual dysfunction, anemia, neuropathy, nausea, vomiting, diarrhea, weight changes, and inability to taste food), breathing difficulties, cognitive changes, and functional limitations.<br>Changes in daily activities: Associated with frequent medical appointments and/or disruption of daily activities, inability to work, feelings of boredom. | Denial: Difficulty accepting the diagnosis<br>Avoidance: Family/close others avoid discussing illness and prognosis<br>Discomfort: Family/friends were uncomfortable discussing their diagnosis and treatment; frustration and loneliness following awkward conversations with family/friends about the illness<br>Existential issues: Include awareness of death and impact on family; searching for meaning of individual's suffering; concerns with loss of time with family. | • The study revealed a number of interrelated losses such as a loss of professional identity, loss of relational intimacy, and negative changes in appearance and functional status, that may contribute to reduced emotional well-being.<br>• Expands the literature on social aspects of metastatic breast cancer.<br>• A cancer diagnosis brings about heightened distress and loneliness along with an awareness of limited time with loved ones.<br>• Other variables, such as denial and avoidance, also impact communication with family/friends. |
| Krigel et al., 2014 | Self-image defined as changes of physical self and self as a whole | QOL[a] | Role function defined as changes related to activities and function<br>Relationships and communication defined as role reversal when requiring help from their children.<br>Uncertainty defined as lack of information about their disease and treatment trajectory. | • Metastatic breast cancer influenced all aspects of the women's lives (changes in role functioning, changes in relationships, and uncertainty).<br>• Desire for information regarding treatment, decline in overall QOL, decline in physical, social, and emotional functioning, and a decrease in sexual functioning and body image.<br>• Participants felt isolated and had difficulty communicating their experiences. Marital relations were affected, causing isolation and loss of intimacy. |

*Note.* BIS = Body Image Scale; QOL = quality of life; BAS-2 = Body Appreciation Scale–2; FAS = Functionality Appreciation Scale; EORTC QLQ30 = European Organization for Research and Treatment of Cancer Quality of Life Questionnaire-Core 30; EORTC BR23 = European Organization for Research and Treatment of Cancer Breast Cancer-Specific Module; SD = standard deviation.
[a]Not explicitly defined in article.

**Table 3. Results of Included Studies (cont.)**

| Author, date | Body image description | QOL description | Other variables | Outcomes of study |
|---|---|---|---|---|
| McClelland et al., 2015 | Body image[a]<br>Measured with two QOL scales: EORTC QLQ30 and EORTC BR23 | QOL[a]<br>Measured with two QOL scales: EORTC QLQ30 and EORTC BR23 | Pain, fatigue, physical function, emotional function[a] | • Time since the breast cancer diagnosis and the location of metastasis affected the patient's QOL. Body image continues to be influential even for those with shortened life expectancies.<br>• Global QOL: Pain ($p$ = .01) and fatigue ($p$ < .001) were associated with decreased global QOL. Age group was not associated with global QOL, but the interaction between age and body image was a significant predictor ($p$ = .02). The time since metastasis diagnosis and body image interaction was significant ($p$ = .04). Body image was not associated with increased QOL in women who were recently diagnosed with metastatic breast cancer. Women diagnosed > 36 months reported a significant increase in global QOL as body image increased ($p$ = .005).<br>• Physical function: Women with greater fatigue ($p$ < .001) reported decreased physical function. Additional interactions between age and body image were a significant predictor of physical function (women 50–65 years old who had higher body image had a significant increase in physical function, $p$ = .04).<br>• Emotional function: Fatigue ($p$ = .02) and body image ($p$ = .001) were significant predictors of emotional function. Greater body image was associated with increased emotional function. The time since a metastatic breast cancer diagnosis and the body image interaction suggested women who were diagnosed > 36 months reported greater emotional function as body image increased ($p$ < .001). The disease site and body image interaction was also significant, $p$ = .001 (women with nonvisceral disease had a significant increase in emotional function as body image increased ($p$ < .001) and body image was not associated with emotional function in those with visceral disease $p$ = .26). |

*Note.* BIS = Body Image Scale; QOL = quality of life; BAS-2 = Body Appreciation Scale–2; FAS = Functionality Appreciation Scale; EORTC QLQ30 = European Organization for Research and Treatment of Cancer Quality of Life Questionnaire-Core 30; EORTC BR23 = European Organization for Research and Treatment of Cancer Breast Cancer-Specific Module; SD = standard deviation.
[a]Not explicitly defined in article.

**Table 3. Results of Included Studies (cont.)**

| Author, date | Body image description | QOL description | Other variables | Outcomes of study |
|---|---|---|---|---|
| Ettridge et al., 2021 | Body image: changes in one's appearance and the perception/ conceptualization of oneself (scarring, hair loss, loss of breast). Three measures were obtained to measure different aspects of body image.<br>Body image dissatisfaction data were obtained from a prior study that surveyed patient-reported outcome measures by using BIS.<br>Body appreciation data were collected using BAS-2<br>Functionality appreciation was measured using FAS. | QOL: affecting physical, emotional, and social domains<br>QOL data were obtained from a prior study that surveyed patient-reported outcome measures and EORTC QLQ30 | – | • Women who had breast cancer and appreciated their body and its functionality had better QOL. Those who were dissatisfied with their body and had lower appreciation had poorer QOL.<br>• Correlations between body dissatisfaction and social and emotional functioning were stronger than those with physical, role, and cognitive function, indicating that negative body perceptions may have more influence on emotional and social aspects of women's lives.<br>• Body appreciation and functionality appreciation had slightly stronger associations with emotional and cognitive functioning subscales than physical, role, and social functioning, indicating women with greater appreciation for their body and its functionality also had better emotional and cognitive function.<br>• Overall findings: Both positive and negative body image are key factors to QOL. Body image is related to QOL (physical, emotional, and social domains).<br>• Correlations between body image variables and QOL: BIS × QOL Summary Scale $p < .05$; BAS-2 × QOL Summary Scale $p < .05$ BIS × QOL Physical Functioning $p < .001$; BAS-2 × QOL Physical Functioning $p < .001$ BIS × QOL Role Functioning $p < .001$; BAS-2 × QOL Role Functioning $p < .01$ BIS × QOL Emotional Functioning $p < .001$; BAS-2 × QOL Emotional Functioning $p < .001$ BIS × QOL Cognitive Functioning $p < .001$; BAS-2 × QOL Cognitive Functioning $p < .001$ BIS × QOL Social Functioning $p < .001$; BAS-2 × QOL Social Functioning $p < .001$ |

*Note.* BIS = Body Image Scale; QOL = quality of life; BAS-2 = Body Appreciation Scale–2; FAS = Functionality Appreciation Scale; EORTC QLQ30 = European Organization for Research and Treatment of Cancer Quality of Life Questionnaire-Core 30; EORTC BR23 = European Organization for Research and Treatment of Cancer Breast Cancer-Specific Module; SD = standard deviation.
[a]Not explicitly defined in article.

Three out of the four studies included variables other than body image and QOL, such as pain, fatigue, intimacy, role function, sexual functioning, and uncertainty (Mosher et al., 2013; Krigel et al., 2014; McClelland et al., 2015). In particular, the qualitative studies described participant experiences, which highlight the sequelae body image disturbance can have on other aspects of life and could be an important area for future QOL research studies. Additionally, the average age of participants in each study was in their 50s, which may influence how body image is perceived, as individuals at different life stages may have varying perspectives on body image and QOL. The location of the studies (United States vs. Australia) did not seem to significantly impact the findings.

### Strengths and Weaknesses

This review examined the impact of body image on QOL using both qualitative and quantitative methodologies. While impactful patient experiences were obtained and associations between important constructs such as body image and QOL were identified with these studies, there were notable limitations. This review resulted in only four publications based on the inclusion and exclusion criteria, which may narrow results and conclusions. Three major databases were utilized, and additional articles may have been missed. All the participants were women, which is the group predominantly affected by breast cancer; however, it would be worthwhile to also study men with breast cancer to attain a more thorough understanding of the impact of body image as a result of advanced breast cancer in all groups affected by the disease. Additionally, the articles in this review did not discuss the premorbid factors as outlined in the conceptual framework by An and colleagues (2022).

## CONCLUSIONS

This review synthesized the results of four studies with the aim of exploring the impact of body image on QOL in the advanced breast cancer population. The body of evidence was expanded by identifying additional variables impacted by body image, which ultimately influenced overall QOL (loss of sexual intimacy, loneliness, etc.). However, despite these findings, data are limited in this population. Due to the limited number of published studies, further research in the advanced breast cancer population should be conducted to gain a better understanding of the impact of body image on QOL on a larger scale. Identifying these issues on a larger scale would provide further evidence to support the need for psychosocial interventions in the clinical setting. Additionally, it would be beneficial to study other variables identified in this review, such as loss of sexual intimacy and loneliness to gather a more complete picture of the common struggles one experiences with this disease.

The findings of this study have significant implications for advanced practice providers (APPs) in oncology, particularly in enhancing patient care and fostering interdisciplinary collaboration. Advanced practice providers play a critical role in patient education, symptom management, and emotional support. This study highlights the need for APPs to integrate personalized approaches that align with patients' needs. Given the complexity of care, APPs must work closely with oncologists, nurses, pharmacists, and other health-care professionals. This study also highlights the importance of providing care beyond physical health. Advanced practice providers must recognize and address psychosocial challenges that patients face. Understanding these added variables can help clinicians approach cancer treatments in a more holistic manner.

A new search was conducted in PubMed, Embase, and APA PsycInfo (formerly known as PsycInfo) using the same syntax as noted in the manuscript. The dates searched were between 2023 to 2025 to identify any newly published articles related to the concepts. PubMed resulted in 2 articles, Embase resulted in 0 articles, and APA PsycInfo resulted in 0 articles. The two PubMed articles did not meet the inclusion criteria.

The result of this updated search highlights the dearth of articles discussing body image and QOL in individuals with metastatic breast cancer. Future research in this area is crucial to addressing the gap in literature, emphasizing the need for studies exploring the intersection of body image and QOL in individuals with advanced breast cancer.

## Disclosure

The authors have no conflicts of interest to disclose.

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