

Brief Overview about Body Image and Feeling of Loneliness among Post Mastectomy Women

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Abstract

Breast cancer is one of the most serious diseases affecting physical, psychological and social health of women. Mastectomy is not an easy decision for any woman as it leads to changes in her everyday life and has significantly negative influence on those women body image. Body image issues secondary to BC treatment can stem from external, visible changes, such as the surgical loss of breast tissues and scarring, chemotherapy-induced hair loss and weight change, and radiation-induced skin damage and discoloration. Although visible alterations are an obvious source of body image distress, nonvisible changes such as loss of sensation in the breast, nipple, and surrounding skin and internal changes to a woman's sense of her femininity, sensuality, and level of attractiveness have potential to significantly disrupt body image. In addition, disruption of body image is correlated with other domains of psychological distress, including anxiety, depression, feeling of loneliness, fatigue, and a fear of cancer recurrence. Women who undergo mastectomy following breast cancer can experience a variety of significant changes to their bodies, which can affect their mental well-being and quality of life. This article reports the findings of a literature review of women's perceptions of their body image, post-mastectomy without reconstruction.

Key words: Breast cancer; Body image; Loneliness; Post-mastectomy.

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1. Introduction

Breast cancer is the most frequently diagnosed cancer in women worldwide with 2.26 million [95% UI, 2.24–2.79 million] new cases in 2020 (Ferlay J et al, 2021). According to the latest global burden disease (GBD) report, breast cancer is still the most common type of cancer among women and the second common type of cancer among all types of cancers in the United States and the world. According to the latest statistics in 2021, the incidence and mortality of breast cancer in 2020 was 2.1 million new cases and 684, 996 deaths (Siegel et al., 2021). Globally, breast cancer was responsible for 684,996 deaths [95% UI] at an age-adjusted rate of 13.6/100,000. Although incidence rates were the highest in developed regions, the countries in Asia and Africa shared 63% of total deaths in 2020 (Ferlay et al, 2021). Breast cancer incidence and death rates have increased over the last three decades. Between 1990 and 2016 breast cancer incidence has more than doubled in 60/102 countries (e.g., Afghanistan, Brazil, Argentina), whereas deaths have doubled in 43/102 countries (e.g., Yemen, Paraguay, Libya, Saudi Arabia) (Sharma et al, 2019).

Current projections indicate that by 2030 the worldwide number of new cases diagnosed reach 2.7 million annually, while the number of deaths 0.87 million (Ferlay et al, 2021). Today, surgery for cancer treatment is increasingly popular, so it is predicted that cancer-related surgeries will increase from 9,065,000 surgeries in 2018 to more than 13, 821, 000 surgeries in 2040, breast cancer surgery is performed in both partial (lumpectomy) and complete (mastectomy) forms (Perera et al., 2021). The modern approach to breast cancer management is multidisciplinary; it includes surgery, radiotherapy, hormonal therapy and chemotherapy. However; surgical management is the hallmark treatment of breast cancer. Among the surgical procedures modified radical mastectomy (MRM) is the most commonly performed procedure of treatment in breast cancer management (Shao et al., 2021; Chandrakar & Shinde, 2019).

Women treated for breast cancer frequently experience numerous disease- or treatment-related adverse outcomes (physiologic, psychosocial, or both) and poorer mental well-being. Side effects that appear with adjuvant cancer treatment differ depending on the mode of treatment, which is radiotherapy, chemotherapy, hormonal, surgical or antibody therapy. In addition, these unwanted effects can be prolonged after completion of active treatment and may hinder the woman's return to normal life (Moo et al., 2018).

Cancer, which is one of the most significant health problems worldwide today, is a disease that threatens human life in biological, psychological, social, spiritual, and economic dimensions. Being diagnosed with cancer is a very traumatic experience and can affect both the patient and his/her family. Cancer affects one's life, self-esteem, body image, personal and social roles, and relations with family and the environment, and may increase the need for social support (Pehlivan et al., 2012; Sahin & Tan, 2012).

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Body image is defined as a multidimensional concept that encompasses perceptions, feelings, thoughts, and attitudes regarding a person's own body shape and appearance. The physical changes brought by cancer treatments are expected to have a negative impact on the body image of survivors, irrespective of the diagnosis (Chow et al., 2019). Body image disturbance was associated with increased psychological distress in breast cancer survivors, highlighting the importance of body image to overall psychological well-being and self-esteem (Lewis et al., 2018). According to the report of the American Cancer Society, providing optimal care and treatment services to cancer patients requires examination and recognition of their needs. Therefore; assessing the needs is a strategy for identifying the unresolved concerns experienced by these patients and determining their needs in order to help them in various parts of the care chain. Further, the needs of every patient should be followed to achieve good and efficient quality care and assessing the needs of cancer patients should cover all important aspects of their life such as physical, emotional, and spiritual dimensions, as well as social functions (Mirzaei et al., 2019).

Body image issues secondary to breast cancer treatment can stem from external, visible changes, such as the surgical loss of breast tissues and scarring, chemotherapy-induced hair loss and weight change, and radiation-induced skin damage and discoloration. Although visible alterations are an obvious source of body image distress, nonvisible changes such as loss of sensation in the breast, nipple, and surrounding skin and internal changes to a woman's sense of her femininity, sensuality, and level of attractiveness have potential to significantly disrupt body image. In addition, disruption of body image is correlated with other domains of psychological distress, including anxiety, depression, fatigue, and a fear of cancer recurrence (Jun et al., 2011)

Breast cancer and changes in the body

In light of advancements in medicine today, it can be said that there is a huge variety of treatments for breast cancer. Within the 4 basic oncological procedures – namely, surgery, chemotherapy, radiotherapy, and hormone therapy – there will be a lot of changes in the body, the effects of which the patients will have to deal with (Fetaini et al., 2020)

Changes in the body after surgery

Nowadays, surgery is one of the most commonly used methods of breast cancer treatment. There are many variants of breast cancer surgery and each of them leaves the woman's body mutilated to some extent. In contrast to procedures standard 10–15 years ago, bilateral mastectomy is a rarity. This is a positive development which is supported by the studies by Rosenberg et al. in which they found that after this very surgery patients reported the most negative body image. Other variants of this procedure are breast saving surgery, unilateral mastectomy or mastectomy with reconstruction. An important variable of each of these

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treatments is the extent to which the disease has spread to the lymph nodes (Koçan & Gürsoy, 2016)

Each of these surgeries can cause many difficulties. Each one more or less requires patients to deal with remnants of the surgery, such as postoperative scars, foreign bodies like surgical drains, swelling, redness, lymphedema, and others. All of them may result in severe pain causing, e.g., worsened cognitive functioning or depressed mood, leading to a deterioration in quality of life. However, the aesthetic aspect of such treatments is also important. Depending on the severity of the disease, the extent of changes, as well as the skills and experience of surgeons, the effect of the surgery may differ and the patient may have problems accepting the asymmetry of the breasts, the disproportion between them or the need to wear bra pads to comfortably display cleavage (Carreira et al., 2020)

It can cause problems with self-acceptance, but may also result in problems concerning sexuality and the quality of one's relationships. With the steady progress of treatment methods and the increasing frequency of breast reconstruction surgeries, problems can be expected with the "new" BI among patients with implants. Such surgery may be associated with unnatural sensations in the reconstructed breast, a sense of artificiality, or even the potential for the implant to be rejected (Pintado, 2017)

Changes in the body after chemotherapy

Chemotherapy is one of the treatments for breast cancer with perhaps the most prominent side effects which greatly impact the patients' appearance and, thus, have a very negative effect on their body image. The side effect that is most associated with chemotherapy treatment is hair loss. Even the loss of hair on the head alone is often a traumatic experience for the patient (Rodrigues et al., 2022).

Studies show that patients' assessment of their BI after chemotherapy worsens dramatically, mainly due to the need to wear wigs or headscarves. There are many consequences, ranging from a decrease in self-esteem or a decreased sense of sexuality and attractiveness to social difficulties and relationship problems (Chow et al., 2019).

However, it should be remembered that hair loss during chemotherapy does not apply only to the hair on one's head. As the treatment progresses, the patients can lose their eyebrows, eye lashes, nasal hair, and pubic hair. The loss of hair in the nose leads to complications such as nosebleeds and discomfort in breathing. Eyes without eyelashes are more difficult to open and more susceptible to infection and dirt. A lack of pubic hair can lead to irritation of one's intimate parts and problems with urination. It should be noted that physical difficulties are often related to psychological deterioration. In this case, sexual disorders, relationship problems, a lack of self-

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satisfaction, and negative beliefs about oneself should be considered, among other things (Yousaf et al., 2019)

Changes in the body after hormone therapy

Hormone therapy is more and more frequently used to complement the main treatment. In order to understand the changes that occur in a woman's body while taking hormonal drugs, patients should be divided into 2 groups: pre- and postmenopausal. Before starting treatment, postmenopausal patients are asked to discontinue use of any hormonal drugs that are intended to reduce the symptoms of menopause. As a result, patients see a return of symptoms such as hyperhidrosis, hot flashes, irritability, weight gain, vaginal dryness, and others (Martins Faria et al., 2021).

Moreover, patients confront many psychological disturbances connected with common beliefs about menopause. It often causes women to feel older, less socially and physically attractive, and more frustrated and depressed. These symptoms may persist throughout the whole duration of the hormone therapy, i.e., up to 10 years after the main treatment ends (Sukartini & Permatasari 2020)

The use of hormone therapy in patients who have not yet reached menopause should be considered differently. In their case, hormone therapy hastens the onset of menopause. In this situation, patients struggle with the same symptoms as postmenopausal patients. Additionally, hastened menopause causes infertility. Therefore, patients in the prime of their lives often stop feeling attractive, suffer lower self-esteem and are sometimes put into a situation where they must accept that they will not have any more children or will not be able to have children at all, which impacts their mental and overall well-being, often causing symptoms of depression and anxiety resulting from beliefs about not fulfilling women's "social and natural duty". To conclude, oncological treatment of breast cancer can significantly affect a woman's body image (Weingarden et al., 2022)

Variability of body image in patients treated for breast cancer

Not every patient will declare the same extent of worsened BI due to changes resulting from oncological treatment. Numerous studies report that there are many variables that determine how patients cope with the changes in their body and how it affects their functioning during treatment and after the disease. We will present 4 areas that may affect how patients see their bodies affected by breast cancer: the patients' pre-disease personality, socioeconomic factors and common knowledge about cancers prior to treatment, patients' age, and the sense of control reported during treatment (Brandão et al., 2017)

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Pre-disease personality and perception of body changes

The personality of the patient before her disease will have a big impact on how she feels about the changes in her body once treatment ends. The patient's identity is put to the test in expanding it to the image of the diseased self while dealing with all the changes resulting from such a crisis. Studies report that changes in the body image of patients who have completed breast cancer treatment largely depend on their body image before the disease. Patients who find it harder to observe changes in their body have difficulty looking in the mirror. Patients describe the hair loss resulting from chemotherapy as a particularly difficult experience. (Fetaini et al., 2020)

According to some studies, patients who do not deal well with changes to their BI experience a decrease in self-esteem. The changing body image impacts on their identity and destroys the often unstable balance and self-image. Patients evaluate the changes in the body as a reminder of the disease, something that prevents them from forgetting that they are ill, that an inseparable part of their identity is the sense of a diseased self (Muzzattiet al ., 2017).

There are also reports which state that the ability to deal with emotions before the disease will affect the extent of changes to the body image. More stable patients who cope better with their feelings will suffer less from the changing body image than emotionally unstable patients with disordered identities (Badger et al., 2020).

Socioeconomic factors and public views on oncological disease

A very important factor influencing whether or not patients will negatively assess changes within their body is their socioeconomic status and public views on oncological treatment. Studies show that socioeconomic status, education and employment play a role in body image disorders. The first conclusion can be explained by the greater awareness among patients with higher education of the consequences of cancer treatment and by the fear associated with returning to work, a fear associated with rejection and ostracism and reported by many women who have completed oncological treatment (Ghasemi et al., 2020).

This fear is worsened by widespread, inaccurate public beliefs about the disease. As a result, patients' readjustment to life after the disease is very difficult and the changes to their body image are a painful reminder that after treatment they will stand out and thus be exposed to many unpleasant social situations. Many patients do not want their appearance to embarrass others, nor do they want to be treated differently than others. For this reason, women often refrain from leaving the house after oncological treatment. Both their social and professional lives suffer because of this trepidation (Lundberg& Phoosuwan, 2022).

On the other hand, a higher socioeconomic status means that patients have a greater ability to mask changes in their body which may contribute to their well-being. Such patients may, i.e.,

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buy a wig made from real hair or may begin treatment in more specialized clinics equipped with cooling caps, or they can make use of better cosmetics, etc. to take more control over their appearance (Begovic et al., 2012).

Patients' age and changes in body image

Another key factor that can bring about changes in body image is age. Studies show that younger patients do not deal with oncological treatment and its consequences as well as older patients. A patient's young age may indicate more radical treatment methods and thus is more likely to increase the stress associated with serious changes to the body. For example, chemotherapy, which has the worst associations in society as well as the most negative assessments from oncology patients, is used more frequently in young patients. Moreover, there are studies which prove that young patients who initially had a negative body image will cope with cancer treatment worse than older patients with an equally negative self-image (Muzzatti et al., 2017).

Younger women, in particular, are at higher risk than older women for having body image concerns after BC treatment. Body image research indicates that although satisfaction with one's physical body remains somewhat consistent across ages, self-esteem about one's body is more significantly impacted in younger women (Kalaitzi et al., 2007)

That is, changes to a woman's body may be equally dissatisfying to a woman, regardless of age, but to younger women, these changes may have a greater impact on their current assessment of self-worth. One explanation is that as women age, there is an organic acceptance of the aging process which is inherently characterized by expected changes in the body. However, for a younger woman, dramatic alterations from the "body ideal" are unexpected, and because they depart from what is "natural," they can result in a greater negative impact on overall self-esteem. From a developmental perspective, a central feature of young adulthood is building self-confidence and developing a strong relationship with oneself and intimate others. When young breast cancer survivors face significant distressing physical changes during this sensitive developmental period, there is often a notable sense of loss on one's physical functionality and attractiveness (Sherman et al., 2017).

One may suspect that a worse body image in young women may result from problems of both physical and psychological nature. Struggling at a young age with physical limitations, a decreased sense of attractiveness, lowered self-esteem, or deliberations on the impact of treatment on one's future is extremely burdensome; the body is exhausted by disease and its transformation reminds patients of the disease, so there is an extremely negative impact on young women and their body image (Chen et al., 2012).

Sense of control during the treatment and body image

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The last factor affecting the differences in body image among patients after completing cancer treatment is the subjective sense of control during treatment. Other studies show a hierarchy of well-being, depending on the type of surgery, reporting that patients who decided to have breast reconstruction had a less negative body image than patients who underwent mastectomy (Paterson et al., 2016).

The influence on social functioning of a negative body image during oncological treatment

Among the many aspects of the lives of patients treated for breast cancer which are affected by their worsened BI, the subject literature seems to focus in particular on 3 basic ones: quality of life, sexuality and social functioning (Buki et al., 2016)

As the most general construct covering many aspects of life, quality of life was included in many studies. The overview study by Lemieux et al. includes the issue of quality of life among patients treated with chemotherapy for breast cancer. They recognized anxiety symptoms, a general feeling of stress, sexuality, self-esteem, social functioning, and the return to work as part of quality of life. Patients reported problems in all of these aspects. It turned out that patients treated with chemotherapy reported particularly low results on the life quality scale. They also reported the largest decrease in sexuality due to the treatment (Fingeret et al., 2014).

Another area significantly affected by negative body image after oncological treatment is social functioning. According to reports, patients are extremely stressed by society's reception of changes in the body and have great difficulty readapting to life in society after their treatment. Another study confirmed this deterioration in the social life of patients after treatment. In these studies, patients reported grave concerns about making others embarrassed because of their appearance. Many studies also emphasize the difficulties patients have leaving the house after treatment (Ghaemi et al., 2019). This may be due to symptoms of depression caused by their negative body image, reluctance to admit to having the disease, or fear of social ostracism or other negative reactions from society. Studies also point to another particularly important aspect of social life – returning to work. It turns out that patients report feeling a huge amount of stress associated with returning to their duties. This is expressed, e.g., by the problem of getting dressed for work in such a way as to feel comfortable yet not to draw attention to oneself (Barthakur et al., 2017).

Loneliness is a known risk factor for poor mental and physical health in the general population and is linked to poorer health in cancer patients as well. Specifically, greater loneliness has predicted poorer immune functioning and greater depression, fatigue, pain, sleep disturbance, and incidence of cancer and all-cause mortality among cancer patients (Adams et al., 2017). Specifically, after experiencing a cancer diagnosis, BC patients are more vulnerable to have higher expectations of emotional support, whereas these expectations cannot be fully met due to subjective or objective reasons which in turn leads to higher loneliness (Adams et al., 2018).

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In a meta-analysis study, it has been reported that loneliness was more prevalent patients who suffered from a lack of psychological or social support, that loneliness had an inclination to rise along with the time that had passed after the cancer diagnosis, and that there was a negative relationship between a lack of social support, social function, and loneliness (Deckx et al., 2014). Alongside this, the risks of recurring cancer and breast cancer-related mortality were reported to be higher in socially isolated women, and it has been stressed that social networking, friendly relations, and family relations are thus important (Kroenke et al., 2017). On the other hand, social support can decrease the loneliness experienced by oncology patients and increase their treatment adherence, speeding up the healing process and increasing their quality of life (Li et al., 2015).

Various aspects of the cancer experience contribute to loneliness. For example, many cancer patients have heightened existential concerns but feel that family members do not share these concerns. Additionally, some patients experience socially constraining behaviors (e.g., criticism, avoidance) when attempting to discuss cancer related concerns. Social-cognitive processing theory and research suggest that these social constraints are associated with poor psychological outcomes, such as loneliness (Rosedale, 2009). Furthermore, patients' loneliness-related cognitions may specifically relate to the cancer experience (e., regarding others' level of support during their illness). Thus, loneliness may be influenced by different social factors in cancer patients relative to the general population (Lepore & Revenson, 2007).

Although efficacious loneliness-reduction interventions have been developed, these interventions have rarely targeted cancer populations. Furthermore, loneliness interventions in cancer have not addressed maladaptive social cognitions (e.g., negative social expectations), despite the fact that targeting such cognitions was found to be most efficacious for reducing loneliness in a meta-analysis with general population samples (Masi et al., 2010).

3. Conclusion

Finally, Women who undergo mastectomy following breast cancer can experience a variety of significant changes to their bodies, which can affect their mental well-being and quality of life. This article reports the findings of a literature review of women's perceptions of their body image, post-mastectomy without reconstruction.

Declaration of Competing Interest

The authors declare no known competing interests.

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