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Psychological Considerations of Body Image and Self-esteem as Correlates of Augmentation Mammoplasty and Breast Cancer in Women

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ABSTRACT

Female breasts have been admired for a variety of reasons throughout the ages. This can influence a preoccupation with breast size. As a result, augmentation mammoplasty (AM) has become a sought-after elective cosmetic procedure, especially in western culture. Research has confirmed the psychological benefits of AM, but it has also shown that some women with a self-perceived inadequate breast size who request AM can present with psychological problems. Likewise, authorities agree that the diagnosis of breast cancer which remains one of the most frequently diagnosed cancers among women worldwide, can have an adverse effect on women psychologically, and that the number of patients who live with the psychological sequelae of both the disease and its treatment continue to rise. Several factors relate to psychological distress in women coping with these issues. In particular, self-esteem and body image-related problems faced by women can add a burden to their psychological well-being. This article reviews some of these issues and psychological treatment options to enhance women's adjustment in this regard.

Keywords: Body image, breast cancer, augmentation mammoplasty, self-esteem, stress

1. INTRODUCTION

Female breasts have been admired for a variety of reasons, including their erotic beauty and functional purpose throughout the ages as regularly depicted in art, sculpture, literature, poetry, the fashion industry and the advertising media. In some cultures, they are often considered the ultimate mark of femininity and provide virtually limitless commercial opportunities to promote a variety of products [1]. In honoring the female body, this can influence a preoccupation with breast size. As a result, augmentation mammoplasty (AM) has become a sought-after elective cosmetic procedure, especially in western culture where the sexualized view and predominantly erotic meaning of the female breast have been emphasized. Research has confirmed the psychological benefits of AM [2], but it has also shown that some women with a self-perceived inadequate breast size who request AM can present with psychological problems, including suicidality [3] which can be associated with age-related issues and/or differential psychopathology. Likewise, authorities agree that the diagnosis of breast cancer, which remains one of the most frequently diagnosed cancers among women worldwide [4] can have an adverse effect on women psychologically, and that the number of patients who live with the psychological sequelae of both the disease and its treatment continue to rise [5, 6].

Several factors relate to psychological distress in women coping with these issues. In contrast with those who request AM, women with breast cancer confront the additional challenges of having to face a potentially life-threatening illness, painful and sometimes disfiguring treatments involving choices in mastectomy, lumpectomy, breast reconstruction and significant changes in physical ability and life adjustments [7]. Given this, in both AM and breast cancer, different modalities of treatment have the potential to change physical appearance and affect psychological responses in various ways [2, 6-9]. In particular, self-esteem and body image-related problems faced by women can further impair their psychological well-being, since they often tend to be concerned with their appearance [10, 11]. Additionally, related pre-morbid concerns can further contribute to psychological distress in women treated for breast cancer or those seeking AM [2, 7]. Given the above, this article reviews some of these issues and psychological treatment options to enhance women's adjustment in this regard.

2. BODY IMAGE

Body image is a multidimensional, subjective and dynamic construct that refers to the perceptions, thoughts, behaviours and feelings a woman has of her body and its functioning [12]. Body image is not simply a reflection of the biological endowment of the individual or the feedback the person receives from significant others, but forms part of how the body is experienced and evaluated by the person herself. This evaluation depends, amongst others, on an interplay between personal factors (including self-esteem), interpersonal factors (including family, peers, and the media), biological factors (such as genetic traits and pathologies), and cultural factors (such as sociocultural values and norms).

The perceptual component of body image refers primarily to body size estimation which can be further subdivided into the sensory components of self-perception (visual system responses) and the non-sensory elements or the cognitive and affective responses to visual information. An attitudinal dimension of body image is composed of evaluative, affective, and

cognitive subcomponents. The behavioural aspects of body image include the individual's actions which are intended to monitor the state of her body [13].

Cash [14] proposes a model which distinguishes body image evaluation from body image investment. This model specifically differentiates between historical factors, or past experiences which shape attitudes of body image and proximal factors and refers to current life events. Both AM and breast cancer and its treatment may be regarded as critical proximal events that may bring about re-evaluations of one's physical appearance, body image and psychological adjustment.

3. BODY IMAGE INVESTMENT

Body image or appearance investment refers to the degree to which individuals value their appearance and believe that their self-worth is contingent on their appearance [15]. The construct relates to the psychological significance or value that people attribute to their body image evaluations and to the consequences of those evaluations to their self-definition and adaptive functioning [16, 17]. Body image dissatisfaction is often found in individuals who are greatly invested in their appearances [2, 18, 19]. Body image investment can be classified into four attitudinal components: body satisfaction, feelings (e.g. affect, emotions, anxiety, stress and discomfort), cognition (e.g. thoughts, social comparisons, investment in appearance and internalization of beauty ideals), and behaviour (e.g. avoidance and body-checking).

Additionally, appearance investment represents the psychological importance of appearance in an individual's life including the centrality of appearance to one's sense of self. According to Cash [20] there are two varying forms of appearance investment, namely self-evaluative and motivational. Self-evaluative investment or self-evaluative salience (SES) refers to the extent to which individuals define or measure themselves by their physical appearance and which they consider essential in their daily living. Motivational investment or motivational salience (MS) relates to the importance of having and/or maintaining an attractive appearance. It reflects the degree to which individuals engage in behaviours in order to manage their appearance. Importantly, SES can be more dysfunctional than MS [20]. While the first is more predictive of negative body image and a vulnerability factor leading to poor adjustment, the second is thought to be relatively benign and a protective factor which helps women cope with changes in their appearance [21, 22]. Individuals with high SES tend to overemphasize the importance of their physical appearance when assessing their personal and social worth. High SES is linked to greater levels of dysfunctional and maladaptive behavior than high MS.

Carver et al. [23] sub-divided the construct of appearance investment into the sub-components of concern about appearance or the extent to which patients are concerned regarding their appearance and their reliance on it as a source of self-esteem and concern about body integrity which, in turn relates to the sense of body wholeness and its effective functionality. They found that women who were more invested in their appearance reported greater distress before surgery and in the following year, but had a more consistent perception of attractiveness. Those women who were more invested in body integrity reported increased disruption in social activities but not necessarily greater distress. The study suggests that appearance investment may not be just a vulnerability factor for poor adjustment, but also a protective factor that may buffer the negative effects on patient's perceptions of attractiveness.

Patients who place greater significance on their appearance to define their self-esteem, may be more vulnerable to poor adjustment resulting from body image changes [24].

4. SELF-ESTEEM

While body image relates to physical appearance, self-esteem comprises an emotional component. Self-esteem has been defined as the overall affective evaluation that an individual makes of herself in terms of her worth, value, importance or capabilities. The construct includes an individual's subjective appraisal of herself as intrinsically either positive or negative to some degree [25]. Research confirms that perceptions of physical appearance and self-esteem appear to be inextricably related [26]. Individuals' perception of their body greatly influences self-esteem and studies by suggest that of all the personal attributes that have bearing on the development of body image, self-esteem may be the most pivotal [27, 28]. Particular aspects of body image such as perceived physical attractiveness have been found to be positively correlated with self-esteem [29]. A high personal investment in one's body image may be a significant source of self-worth [11] and differences between perceived and idealized body image predict lower self-esteem [30]. Body image can be closely related to self-esteem and the correlation between them has been well-researched [10, 31]. Physical appearance has consistently been found to be predictor of self-esteem at any age [32]. Although body image-related difficulties often originate when pre-occupation with physical appearance is common during the crucial adolescent developmental phase they can also occur in later life following, amongst others, childbirth, breast-feeding and the natural ageing process. In the absence of a disease like breast cancer, women can experience a deep sense of psychological loss where the associated symbolic, psychological and other variables and consequent requests for AM can also be influenced by cultural factors and according to the ideals of different countries societies [1, 2, 33, 34]. In this respect, body image dysphoria, loneliness, subjective well-being and depression can be important variables related to the patient's cultural group and marital/partner status. According to research women who request AM usually have high expectations of the surgical outcome, and both patients and their partners are generally satisfied with the appearance of their breasts post-operatively as well as with the psychological benefits including an improvement in psychosexual functioning, anxiety and depression [2, 33].

5. BODY IMAGE, SELF-ESTEEM AND BREAST CANCER

A large amount of research on body image in the oncology setting has been conducted with breast cancer patients [35]. Breast cancer treatment may result in changes in several aspects of the patient's body, not only in the size, symmetry and skin texture of the breasts themselves but even in women whose breasts remain intact, in other areas affected by treatment modalities, such as lymphedema, treatment-induced alopecia, weight fluctuation and induced menopause [36, 37]. Not only appearance but psychological functioning may be adversely affected [35], especially when body image may become an aspect of the long-term psychological side-effects of the disease [38-40]. These findings suggest that body image concerns affect significant numbers of breast cancer patients with issues persisting into long-term survivorship. This effect becomes significant in patients whose body image is centred

around their femininity [37]. When facing body image changes after breast cancer, those women who place greater importance on their physical appearance as reflecting their self-identity would be at greater risk of poor adjustment. Appearance investment, then, appears to moderate the association between body image difficulties and psychological distress in breast cancer patients [41]. Research has demonstrated that women with breast cancer tend to be more dissatisfied with their body image in relation to those women without breast cancer, which effect becomes greater following mastectomy and during chemotherapy. Among those patients who were dissatisfied with their body image, self-esteem was found to be adversely affected [37]. Cancer-related appearance changes are expected to result in negative reactions if the patient has high body image investment and there is a disparity with her idealized body image [42]. This suggests a strong correlation between these aspects of physical attractiveness and femininity and the patient's concept of her body image or self-esteem [43].

Much research has been focused on the body image effects of mastectomy versus breast conservation therapy (BCT) with studies reporting greater psychological distress and disruptions in body image following more invasive breast surgery [41, 44-46]. One study showed that 100% of women with breast cancer, who had undergone mastectomy, were reported to have a negative image of their bodies [47]. Similarly, Sebastian et al., [43] found that mastectomized women had poorer body image and lower self-esteem when compared to those who had undergone a BCT. Although a diagnosis of breast cancer can impact negatively on all patients, those undergoing BCT or mastectomy with later reconstruction reported greater body image satisfaction and less impact on their self-esteem than those women undergoing mastectomy only [48]. This observation is contingent on cosmetic outcome [41].

The loss of a breast is inherently associated with a woman's identity and sense of self with an estimated one-third of breast cancer survivors expressing distress that is directly related to disturbed body image after successful cancer treatment [11]. One recent study showed that body confidence was reduced post-surgery in mastectomy patients but that some women created new body ideals around their changed appearance. These patients rejected mainstream norms and adopted an attitude of pride regarding their operative scars [49].

Studies have demonstrated that younger patients experience greater distress regarding body image following mastectomy [41, 46]. It has been found that predictors for increased body image disturbance included the joint effect of being younger, inactive occupational status, and post-adjuvant therapy side effects. The same study concluded that dissatisfaction with social support predicted lower self-esteem [50]. Another study concluded that further factors such as type of surgery, time elapsed after treatment, the patient's level of anxiety, the nature of adjuvant chemotherapy, the experience of partner support, and a satisfying relationship are important factors for body image in breast cancer survivors [51].

6. STRESS AND COPING

In terms of cancer, five common adjustment styles have been identified, where adjustment refers to the patient's ongoing attempt to effectively optimise the capacity to manage or alleviate the physiological, psychological, behavioural and social consequences of the experience and process of cancer [52, 53]. The adjustment stages are: a fighting spirit (where the diagnosis is seen as a challenge); avoidance or denial (where denial is accompanied by behaviour which minimises the impact of the disease); fatalism (the patient has an attitude of passive acceptance);

helplessness and hopelessness (the patient is completely overwhelmed by the threat of cancer); and anxious preoccupation (the predominant behaviour style is one of compulsive searching for reassurance). Given this, a positive approach indicates a behaviour pattern which serves as an adaptive function for the patient and several studies have demonstrated a link between a lack of 'fighting spirit' or a helplessness/hopelessness adjustment style to poorer outcome of coping with the disease [54;55]. In terms of cognitive behavioural theory, the patient's perception of lack of control over stressors may generate negative self-statements since perception is related to a person's beliefs, attitudes, feelings and thoughts [56, 57]. Because of this, perceptual distortions can cause unnecessary stress and psychopathology [57]. Research also suggests that the occurrence of stressful life events, may increase psychological symptomatology prior to request for AM and response to cancer [58-60]. Some have even argued that stress may play a role in the initiation of some cancers [61], although other researchers have suggested that stress impacts mostly on the promotion of and coping with cancer, not its initiation [62, 63]. Different elevated stress levels within these categories in both request for AM and breast cancer patients have been reported [58]. For example, in terms of the general signs and symptoms of unhealthy stress, studies suggest [57, 64] that these can be interpreted in terms of different categories of stress, and the researcher provides cut-off scores for each category, including physical reactions, psychological reactions and behavioural reactions [58, 64].

In a study designed to compare the relationships of multiple variables between two groups of women at different developmental stages of the life-cycle who were on treatment for breast cancer, both groups demonstrated elevated stress levels across the physical, psychological and behavioural stress dimensions. A greater percentage of women from the younger sample experienced moderately higher levels of 'psychological' stress than the old patients, which may be related to their higher levels of depressive symptomatology [58]. Consistent with the findings in this study researchers on breast cancer and other types of cancer cited in the psycho-oncology literature show that younger patients tend to experience more distress, anxiety and depression than older patients, who generally demonstrate better psychosocial adjustment [65-69], although women with breast cancer have to contend with different issues and stressors at different stages of this life-cycle and many younger women with breast cancer seem to experience more disruption to developmental tasks than older women [58].

7. SUICIDE RISKS

Both AM and cancer can also be associated with elevated suicide risk, but the association is complicated and research data tend to vary [3, 70, 71]. Knowledge about the prevalence of suicidal behaviour in these patients in developing countries is limited, but an increased risk of suicide in some patients have been demonstrated despite research limitations that skew data on actual suicidal behaviour [71, 72]. Although more recent studies have provided substantially improved data on both the prevalence of suicide risks and the factors that influence such risks, existing caveats remain. Regarding AM, body dysmorphic disorder (a pre-occupation with slight or imagined defects in appearance) and request for cosmetic surgery has been considered as a contra-indication to such surgery [3]. Most people with body dysmorphic disorders have impaired psychosocial functioning because of concerns with their appearance [73]. Following AM, although most women are satisfied with the post-operative results and improvement in body image, other areas of psychosocial functioning and quality of life seems less clear [3]. In

cancer, generally, suicide risk variables that have been considered include gender differences, family influences, ethnicity, stage of disease, prognosis, cultural influences and subtypes of cancer [71]). A South African study on cancer patients found that many cancer patients hold suicidal behaviour as an option to retain some sense of control and that passive suicidal behaviour sometimes occurs in the form of “accidental” suicidal acts or noncompliance with treatment as a variation of subintentioned suicidal behavior [74]. As in the case of other life-threatening diseases such as HIV/AIDS [56, 74, 75], suicide risk is not always because of the fear of death itself, but often of how the disease and its sequelae are perceived and managed. If a patient is left without appropriate cultural or psychosocial support (or if this is the patient’s perception), a sense of abandonment may lead to the development of hopelessness and possible suicidal behaviour [71]. It is important to note that social attitudes and cultural beliefs can have a significant effect on how patients perceive themselves and their future, especially where body-image and self-esteem form a significant part of the consequences and subsequent psychological problems [2, 71, 74]. Despite these research findings, women who request AM and breast cancer patients who might be suicidal are not always referred for appropriate psychological and/or psychiatric assessment and/or treatment.

8. PSYCHOLOGICAL INTERVENTIONS

The value of psychotherapy to assist some patients to incorporate their AM into an extended or 'altered' body image has been emphasized if there are unresolved psychological problems postoperatively. Accordingly, it is important not only to evaluate any post-operative physical outcome of the appearance of the breasts, but also to take into account the psychological outcome as well as potential psychological factors that might contra-indicate any benefits, given the patients’ and sometimes their partners’ expectations of AM. Likewise, research literature demonstrates that breast cancer patients can experience a complexity of psychological and socio-cultural dysfunctions due to the trauma of the diagnosis and the need for mastectomy and/or breast reconstruction surgery. In these patients, psychological assessment can in itself also be therapeutic and through psychotherapy negotiated self-help coping strategies can be effective within a cognitive behavioural paradigm [2]. Many studies demonstrate that Cognitive Behavioural Therapy (CBT)-based interventions can promote a positive body image in these patients. CBT is a goal-oriented, time-limited psychotherapeutic approach by trained mental health professionals that modifies dysfunctional thoughts, perceptions, emotions and behaviours through techniques such as goal-setting, cognitive restructuring, systematic desensitization, and skills training. Improvements in body appreciation, weight and shape concern, acceptance of age-related appearance changes, self-esteem and body satisfaction with relationships have all been found to follow a CBT approach [35, 76, 77]. Providing insight into the loneliness experience in patients with body image problems from diverse cultures can enable healthcare workers to assist them to improve their psychological health status through the identification of coping strategies to reduce negativity. However, experiential processes should not be conceived as separate events but as holistic [78]. In this regard, according to Schlebusch [57], perception, cognition, emotion and behaviour form a cascade that can be used to facilitate an understanding of the processes through which perceptual shifts and the modification of dysfunctional thought patterns can occur. This further underscores the appreciation of mind-body unity in patients to make the necessary perceptual

changes in order to modify dysfunctional thought patterns related to poor body-image and self-esteem. This approach allows for patient education to incorporate cognitive behavioural techniques as powerful tools to modify their adjustment styles and increasing their coping skills. Through more accurate perceptual insight and adjusting negative thought patterns, patients can learn to cope more effectively and ultimately improve their overall quality of life. Psychological intervention can be usefully based on a biopsychosocial approach and identification of attitudes, beliefs and psychological characteristics of patients, particularly in terms of a mind-body interface and self-esteem as a progressive interaction where perceptions may affect coping. With more perceptual insight and the adjustment of negative thought patterns into functional cognitions, patients can cope more effectively and ultimately enhance their quality of life and sense of subjective well-being. Conversely, failure to make adequate perceptual adjustments may result in further cognitive distortions, and eventually psychological problems. Furthermore, since the symbolic nature of female breasts plays a major role in a woman's feelings of femininity, attractiveness, body-image and self-esteem in respect of private and public self-consciousness, positive perceptions of physical appearance can enhance the person's quality of life and coping mechanism through assistance with appropriate clothing behaviour [18].

9. CONCLUSIONS

It is generally accepted that psychological distress and in particular, body image difficulties are commonly associated with breast cancer and its treatment and request for AM. The nature of these problems and their relationship to self-esteem are well established.

Body image is a complex, multi-factorial construct that forms an important aspect of women's lives and studies indicate that most women are concerned with their appearance. Given the deficits, both physical and psychological, that may be associated with the consequences of a diagnosis of breast cancer and subsequently its treatment, it becomes clear that patients and survivors, particularly those who are more invested in their appearance and whose self-esteem is based on this appearance, will be at risk for greater psychological distress.

As ever more women request AM and are diagnosed with breast cancer, particularly greater numbers of younger women, and as more patients survive for longer intervals due to improved oncotherapeutic techniques, it becomes incumbent upon health care professionals to be more cognizant of the distress their patients may be facing and to refer them for appropriate psychological treatment interventions.

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