7.4 Breast cancer and its effect on women's body image and sexual function

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Introduction

Body image is a concept cited extensively in the literature.[1–11] It may be defined as a multifactorial mental construct, dynamically reshaped throughout life, and rooted both in the biologic and psychologic domain.[12] Neurobiologic/somatic, psychologic/affective, and context-related factors contribute to perceptions of body image across the life span.

Body image is a critical dimension of sexual identity.[8,12] Body image may modulate sexual function and response through the complex physical and emotional interactions during sexual activity, and may be modified in turn by the quality of past and current sexual experiences.[8,12] The sexual relationship is the most intimate of the interpersonal factors that contribute to body image perception and, specifically, to the erotic meaning of the breast in adulthood.

Breast cancer affects 8–10% of women in their lifetime; 25% are premenopausal when diagnosed.[13] The beauty and appearance of the breast are important for a woman's sense of femininity, body image, self-esteem, self-confidence, and eroticism.[1–5,8,12] Female sexual identity, sexual function, and the sexual relationship may be adversely affected by the many changes and challenges facing the woman when diagnosis and treatment of breast cancer disrupts her life and that of her family.[1–11] These changes are often accompanied by changes in body image that are brought about by psychologic and iatrogenic factors.

This chapter will discuss the impact of breast cancer on women's sexuality with respect to body image by: (1) describing biologic and psychosocial contributions; (2) reviewing the key literature on the impact of breast cancer on body image and sexuality in cancer patients; (3) focusing on factors and coping strategies that may improve body image of cancer survivors after treatment; and (4) considering the impact on body image of genetic screening and prophylactic mastectomy for women at high risk of breast cancer.

Body image contributors

Biologic and psychosocial factors that contribute to body image are summarized in Table 7.4.1.

In the biologic domain, body image is influenced by sensory information such as sight, touch, smell, sound, taste, and proprioception. This sensory information contributes to the body schema, a major contributor to body image that integrates the sensorimotor aspects of the woman's body. Visceral and autonomic components of body image are less frequently considered, although they may contribute to mood, a sense of

Table 7.4.1. Factors contributing to body image

Psychologic	Biologic
• Cognitive	• Multisensorial
• Affective	• Motor/proprioceptive
• Emotional	• Hormonal
• Cosmetic	• Autonomic
• Sexual	• Disease-related
• Social	

well-being, fatigue, illness, and the ultimate perception of body image.[12]

From the psychosocial point of view, cognitive, affective, emotional, sexual, cosmetic, and social factors further interact with physical issues in modulating body image.[12] The comprehensive emotional and unconscious perception of the body is a major contributor to the private body consciousness, a psychoanalytic concept of more complex body image factors (see Chapters 3.1– 3.4).

Body image and sexuality in breast cancer patients

Breast cancer diagnosis and treatment may modify the woman's body image and sexuality through several modalities. Factors dependent upon the illness, the context, and the individual interact to contribute to the woman's body image and sexual outcome.[8] Major illness-dependent and iatrogenic factors influencing body image and sexuality include stage of cancer, type of breast surgery, lymphedema, hair loss, iatrogenic premature menopause, and age at diagnosis (Table 7.4.2).

Stage of cancer

The stage of breast cancer affects body image, as it determines the extent of radical surgery; the need for lymph node removal; the presence and severity of lymphedema; the need for adjuvant chemotherapy, with the risk of iatrogenic premature menopause, and/or radiotherapy with consequent local and systemic symptoms; and the perception of the risk of death. In a study of 303 women with early stage breast cancer and 200 with advanced breast cancer, Kissane et al.[9] found an overall prevalence of mood disorders, and depression and anxiety disorders, as defined by the *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition (DSM-IV), of 45% and 42%, respectively, Women with advanced breast cancer were significantly less distressed by hair loss, but were more dissatisfied with body image and had higher rates of lymphedema and hot flushes, than the early-stage women. The rates of psychosocial distress were similarly high in both groups, although the illness-related causes of distress were different.

Depression is significantly associated with lower sexual desire and arousal difficulties[1–8] (see Chapter 16.2). Women with higher depression scores report more cancer-related distress pertaining to body image, fear of recurrence, posttraumatic stress disorder, and sexual problems. Those with long-term medical sequelae, such as lymphedema, have poorer adjustment than those who do not.[14]

Table 7.4.2. Major factors affecting body image and sexuality in breast cancer survivors

1. Cancer related
   - Age at diagnosis
   - Type of cancer, stage and prognosis
   - Recurrences
   - Conservative vs radical treatment
   - Adjuvant chemotherapy and/or radiotherapy
   - Treatment impact on ovarian function (sexual hormone production and infertility)
2. Woman dependent
   - Life cycle stage and fulfillment of stage-related goals
   - Coping strategies
   - Pretreatment sexual experience, and its quality
   - Premorbid personality and psychiatric status
3. Context dependent
   - Family dynamics and couple dynamics and marital status
   - Support network (friends, colleagues, relatives, self-help groups)
   - Quality of relationship with health-care providers

Breast surgery

The visual and tactile sensations and perceptions of the breast are affected differently according to the type of breast surgery performed.[1–7] Important factors influencing sexual outcomes include lumpectomy versus mastectomy, immediate or delayed reconstruction of the breast, the need for adjuvant radiotherapy or chemotherapy, and presence and severity of side effects.

In a recent prospective study of 990 breast cancer patients followed for 5 years,[11] mastectomy patients had significantly poorer body image and lower role and sexual function scores than patients undergoing breast-conserving therapy. Body image, sexual function and lifestyle disruptions did not improve over time.[11] Accordingly, breast-conserving therapy, when oncologically appropriate, should be encouraged for patients in all age groups. However, conservative treatment does not guarantee a more positive physical outcome. A cross-sectional study of women 1 year after treatment suggested that, because of the need for adjuvant therapies, women treated by breast conservation have better body image but poorer physical function, particularly younger patients.[15] Negative physical and sexual symptoms may be secondary to the premature iatrogenic menopause and/or to local sensory side effects of radiotherapy.

Lymphedema

Except for breast carcinoma recurrence, no event is more dreaded than the development of lymphedema.[16–18] The surgical removal of axillary nodes may impair lymphatic drainage from the arm. As a result, the arm becomes swollen, causing pain, progressive fibrosis, sensory distortion, discomfort, and disability[18] "Arm problems" are cited by 26–72% of breast cancer patients.[5,6] Fibrosis and lymphedema in the connective tissue and the muscular and functional impairment of the affected arms and fingers deeply affect the physical and psychologic dimensions of body image. When severe, it may impair body image even more than breast surgery. The clinician who, focusing on the risk of carcinoma recurrence, trivializes the nonlethal nature of lymphedema[18] and may hinder adjustment to these