

# Sexuality After Breast Cancer: Need for Guideline

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## Abstract

**Background:** Clinical experiences have revealed that patients with breast cancer experience various sexual problems following their treatment. Breast cancer negatively impacts the sexual life of the afflicted couples, and as a traumatic event can influence women's psychosexual functioning and intimate relationship. This review focuses on sexuality after breast cancer and on a growing need for bio-psycho-social guidelines for breast cancer treatment.

**Methods:** This study aims to review the literature on management, psychological outcomes and sexual dysfunction in patients with breast cancer.

**Results:** Although the benefits of the current treatment strategies are well established, many cancer survivors are at risk for developing psycho physiological symptoms including sexual dysfunction. Cancer and treatment-related factors can influence sexual functioning. We review current treatment-related side effects on sexual functioning such as desire, arousal and orgasm in breast cancer patients. Despite the impact of medical treatment on survival of patients with breast cancer, no satisfactory steps have been taken towards improving sexual functioning of these patients.

**Conclusion:** Breast cancer affects many aspects of sexuality, including changes in physical functioning and in the perception of femininity. Sexual dysfunction following breast cancer should be diagnosed and managed as a systematic approach with multidisciplinary inputs. Healthcare professionals should assess the effects of medical and surgical treatment on the sexuality of breast cancer survivors.

**Keywords:** Breast neoplasm; Psychosexual dysfunctions; Sexuality

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## Introduction

Breast cancer is the most common form of cancer among women in developed countries; and 12% of all breast cancers are diagnosed among women aged 20-34[1]. Breast cancer has the second place after skin cancer in Iran in both sexes in terms of prevalence [2]. It is the most common malignancy in Iranian women and is the fifth leading cause of death among malignancies. Eight thousands ninety new cases of breast cancer occur annually and more than 1300 of breast cancer patients die every year [3].

Survival from breast cancer has improved significantly, and the potential late effects of treatment and its impact on the quality of life have become of paramount importance [1]. An individual's psychological response to cancer is influenced by specific aspects of the cancer, and her ability to manage the cancer diagnosis and treatment which constantly changes over the course of the illness due

to medical, psychological, and social factors. Factors influencing the states of the disease include (a) the personal variables of socio demography, personality and coping style, beliefs, and prior adjustment; (b) the variables associated with stage of illness, rehabilitation options, illness-related behaviours, and the positive feeling toward the treatment team; (c) the availability of social support (family, friends, community, and socio cultural influences); and (d) concurrent stresses related to illness that add to the psychological burden, such as loss of a spouse[4].

The diagnosis of breast cancer encompasses not only physical, but also social and psychological concerns due to the importance of breast in woman's body image, sexuality and motherhood. Body image is a phrase used to describe how one feels about his/her body [5]. It includes not only physical appearance, but also the psychological feelings one has about "breast fullness", and can be considered as significant predictor of sexual activity.

**Table 1.** Drugs and Female Sexual Dysfunction

Medications	desire	arousal	orgasm
Psychoactive medications	√		
Antipsychotics	√		√
Anticholinergics		√	
Antihistamines		√	
Antihypertensives		√	
Barbiturates	√		
Benzodiazepines	√	√	√
SSRI	√	√	√
Lithium	√		
Tricyclic antidepressants	√	√	√
Cardiovascular and antihypertensive medications; Antilipid medications; Beta blockers; Clonidine; Digoxin; Spironolactone; Hormonal preparations; Danazol (Danocrine); GnRh agonists (e.g., Lupron, Synarel); Indomethacin; Ketoconazole; Phenytoin sodium	√		
Monoamine oxidase inhibitors		√	
Methyl dopa; Amphetamines and related anorexic drugs; Narcotics; Trazadone)			√

Mastectomy as a treatment option can result in a sense of mutilation and diminished self-worth and loss of sense of femininity and sexual attractiveness. Losing a breast or poor breast appearance would be more distressing to women as they are supposed to give women high expectations for physical beauty [6]. Data from studies among longer-term breast cancer survivors show that sexual problems occur with considerable frequency and often do not resolve over time, even among women who do not undergo mastectomy, or who have subsequent breast reconstruction [7].

Breast cancer does not just lead to mastectomy scars. Radiation can also lead to redness and soreness on the affected area, and chemotherapy often causes hair and weight loss. Significant similar psychosexual and body image problems occur in patients treated for breast cancer with either mastectomy or Breast Conserving Therapy (BCT). However, there is a growing acknowledgement that sexual problems are not being appropriately addressed by providers [8]. These problems arise early in the course of the disease and therefore their detection and treatment should be addressed during the patients' initial assessment and in the early phases of the treatment [9].

**Breast Cancer and Sexual Dysfunction**

There is a growing body of literature on disability for achieving healthy sexual function among breast cancer survivors [10]. The ability to achieve healthy sexual function involves both psychological and physical factors that affect the sexual response cycle

(e.g. desire, arousal, orgasm and resolution). Cancer and its treatments affect specific aspects of sexual functioning and intimacy [11]. Review of researches on breast cancer and sexuality from 1998 to 2010, has documented a range of physical changes to woman's sexuality following breast cancer, including disturbances to sexual functioning, as well as disruptions to sexual arousal, lubrication, orgasm, sexual desire, and sexual pleasure, resulting from chemotherapy, chemically induced menopause, tamoxifen, and breast cancer surgery. Women's intrapsychic experience of changes to sexuality includes a fear of loss of fertility, negative body image, feelings of sexual unattractiveness, loss of femininity, as well as alterations to a sense of sexual self [12]. The impact of such changes can last for many years after successful treatment, and can be associated with serious physical and emotional side effects [7, 9-20].

Sexual functioning can be affected by illness, pain, anxiety, anger, stressful circumstances and medications [7]. Several researches have shown a high prevalence of psychiatric problems in cancer patients. Distress [21], depression, anxiety and other psychiatric morbidities [22-28] are common in breast cancer patients [29]. There is a strong link between depression and sexual dysfunctions; moreover sexual dysfunction is considered as an important underestimated adverse effect of certain antidepressant drugs. Most of this disturbance probably results from the patients' inability to cope psychologically with disease-related and treatment-

related stresses and the thought of losing their health, role and life.

Sexual dysfunctions as side effects of antidepressant treatments are being reported more and more frequently and are one of the main reasons of dropout from therapy. These side effects are reported in 20% to 40% of the cases [30]. Numerous side effects associated with most antidepressants, include inability to get an erection, sexual dysfunction and reduction in sexual interest or function [31, 32].

According to Serrette and Chiesa study[33], the introduction of psychiatric medications with relatively good safety profiles, such as Selective Serotonin Reuptake Inhibitors (SSRIs) and serotonin norepinephrine reuptake inhibitors, has led to increasing attention on side effects such as Sexual Dysfunction (SD), which, although unrelated to risks of mortality, could undermine compliance with treatment regimens and impair quality of life. Indeed, there is consistent evidence to suggest that a large number of psychiatric medications affect one or more of the three phases of normal sexual response: desire, arousal, and orgasm (Table 1).

### What Can Be Done

Sexual problems are a widespread concern among patients and survivors, and many patients do not receive the information they need from their oncology providers. There are large differences in sexual function between patients who do and do not ask providers about sexual problems [13]. Female sexual function has been largely ignored in treatment of breast cancer. Despite the prevalence and documented persistence of sexuality and intimacy problems among large numbers of breast cancer survivors, few interventions have been developed to specifically address these issues. Most have focused on helping women adjust to global changes in their lives or on accruing generic, illness-related coping skills. Sexual assessment and counselling are not routinely provided in the oncology setting. There is an urgent need to make oncologists aware of the importance of the sexual life of their patients; furthermore, cancer patients need open communication on intimacy and sexuality. They should learn to investigate and treat sexual dysfunctions while assessing and treating the breast cancer. Moreover, they must be aware of the sexual adverse effects of many commonly used antidepressant drugs, particularly SSRIs.

### Intervention Guideline

Since sexual activity has undeniable benefits, such as pain reducing effects [34] decreasing muscular tension for several hours [34-37], sleep enhancing effects and releasing oxytocin, [38-40], diminishing the autism resembling aspects of behaviour [41], mood-enhancing and antidepressant effects [42], basic questions regarding sexual functioning should be part of any complete medical history and part of the treatment plan discussion, particularly if the prescribed treatment has the potential to alter sexual function. Therefore, it is of great importance for all the oncology professionals to encourage open discussion in addition to making appropriate referrals. Psychologists can be helpful in sharing information meaningfully and supportively with patients and their spouses. For bio psychosocial intervention, interpersonal and mental health issues must be addressed first. Then, caution should be given regarding experimental drug interventions. Addressing interruptions and weaknesses in woman's sexual response cycle identified during the assessment, forms the basis of therapy. Behaviour therapy plus sex therapy are two rehabilitative options for women suffering from sexual dysfunction. The multi factorial nature of female sexual concerns defies a quick fix; therapeutic interventions should be tailored to address each source of distress (psychological, interpersonal, socio-cultural, and physiologic) and to attend to each affected functional domain (desire, arousal, orgasm, pain). Available modalities range from education, psychotherapy, and lifestyle interventions to mechanical devices, pelvic floor exercises, and medications.

### Discussion

Sexual response in women is based on desire, arousal, lubrication, plateau, orgasm and resolution. The first three components are interdependent and greatly responsible for reaching plateau, orgasm and resolution. There is growing evidence that women treated for breast cancer with surgery and chemotherapy commonly experience disturbances in sexual functioning. Over the past years, studies have found that breast cancer, chemotherapy, endocrine treatment or psychiatric drugs have had a negative effect on the sex life of breast cancer survivors resulting in sexual dysfunction as a quite common aspect. Thus, growing attention has been paid to a range of changes in women's sexuality following breast cancer including: disturbances of body image and sexual functioning. Such problems push these patients to lose schema of attractiveness; and impact

of such changes can last for many years after successful treatment and can be associated with serious physical and emotional side effects. These patients are then referred to psychiatrists and take psychiatric medications, not knowing this orientation may increase sexual dysfunction [42].

Despite the prevalence of sexuality and intimacy problems among large numbers of breast cancer survivors, few interventions have been developed to specifically address these issues. It is of crucial importance for all the oncology professionals to encourage open discussions in addition to making appropriate referrals. Basic questions regarding sexual functioning should be part of any complete medical history and treatment plan discussion, particularly, if the prescribed treatment has the potential to alter sexual functioning.

In recent years, we have focused on sexual functioning, its assessment and effects on quality of life [43]. We have examined the role of sexual desire [44], sexual efficacy [43, 45], body image [46], sexual fantasy [47], and personality [48] in sexual function and dysfunction. We have studied the etiology of female sexual dysfunction [49] and the role of drugs in sexual behaviour [50]. Our findings confirmed that sexual relationship typically plays a powerful role in human bonding [51]; moreover, based on our culture, we examined psychological treatment in decreasing sexual dysfunction [52].

Along with these studies, our researches on cancer patients, particularly breast cancer patients, in the context of sexual behaviour have shown the role of body image [53] depression and anxiety [54] in breast cancer patient's sexual behaviours. We have also examined the role of increasing awareness [55], hope [56], relaxation [57] and four-factor psychotherapy [58] in breast cancer patients' mental health and quality of life. We strongly believe that the evaluation and management of sexual difficulties should be the standard parts of the clinical care of those women treated for breast cancer. We suggest a triangle intervention including educational, pharmacological and psychotherapeutic. Thus, current interventions in cancer survivors require new expertise.

## Conclusion

We agree with Anderson and Elliot [58] who stated that treatment of sexual dysfunction/disorders in women with cancer is a challenging process. There are two important phases of treatment. First a psychological and medical assessment of realistic limitations created by the disease or treatment is required; second, the clinician must facilitate creative

problem solving in response to these realistic limitations. A variety of psychological and psycho medical strategies may be needed. The ultimate goal of treatment is to support women with cancer in the reacquaintance with their bodies and to facilitate a positive sense of sensuality and sexuality. Treatment can encourage women returning to sexual/sensual interactions with their partners. The general principles of sex therapy may offer women with cancer the opportunity to see themselves as capable sexual women. Interventions are critical to the self esteem of women with cancer and may significantly contribute to their recovery. Health care professionals must realize the impact of sexuality on the quality of life for these women and consequently address their sexual concerns. Sexual problems of the cancer patients are more challenging and difficult to treat, but this does not deny the burden of responsibility to help them. Professionals are bound to create an environment of concentrated effort, and should incorporate a broad repertoire of psychosexual interventions.

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## Conflict of Interest

The authors have no conflict of interest in this article.

## Authors' Contribution

SHV contributed to design of the study and writing up process, FLK contributed to the literature review.

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