

# Management of Treatment-Related Symptoms in Patients With Breast Cancer: Current Strategies and Future Directions

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Although the benefits of current treatment strategies are well established, many cancer survivors are at risk for developing physiologic and psychological late effects of cancer treatment that might lead to premature mortality and morbidity and compromise their quality of life. Psychological symptoms include anxiety, depression, fatigue, difficulty sleeping, and loss of self-esteem. Physiologic symptoms include pain, numbness, cognitive impairment, weight gain, loss of sexual interest, spontaneous menopause, and peripheral neuropathy. Both length and quality of survival are important end points. The goal of this review is to summarize the psychological and physiologic symptoms related to breast cancer treatment; the prevalence, contributing therapies, and inter-relatedness of these symptoms; current interventions to prevent, ameliorate, or treat these symptoms; and effectiveness and safety of these interventions. The results of this review will identify the gaps in knowledge and assist in the design of assessments and approaches to improve mortality and quality of life and provide the foundation for the development of evidence-based guidelines to standardize palliative care in cancer survivors.

**A**ccording to the American Cancer Society ([ACS], 2010), breast cancer is the most common cancer diagnosed in women and ranks as the second-leading cause of death after lung cancer. Women with primary invasive breast cancer receive systemic treatments, including cytotoxic chemotherapy and hormonal therapy, to minimize recurrences and mortality, as well as local treatments such as surgery and radiation therapy (Shapiro & Recht, 2001). The most common surgical treatments are lumpectomy (surgical removal with clear margins), mastectomy (surgical removal of the breast), and removal of the axillary lymph nodes. Common nonsurgical treatments include chemotherapy, radiotherapy, and targeted biologic therapy. The five-year overall survival rate has increased to 89% because of advances in early detection and improved treatment strategies (ACS, 2010). If the site of the tumor is localized and treated in its early stages, the survival rate increases to 98% (ACS, 2010).

Although life expectancy has increased because of advancements, new complications also have arisen. Patients now experience a wide range of physical and psychological symptoms

## At a Glance

- ◆ A significant number of patients with breast cancer experience psychological and physiologic effects of treatment.
- ◆ Current clinical practice and future research must focus on evaluation, treatment, and further understanding of the complex etiology and potential multimodal interventions to optimize patient outcomes.
- ◆ The review identifies important gaps in the research that can inform approaches to improve quality of life in survivors.

that impact the survivors' quality of life (see Table 1). Reported psychological symptoms include anxiety, depression, fatigue, difficulty sleeping, worrying, loss of self-esteem, and lack of appetite and sexual interest (Kenne Sarenmalm, Ohlén, Jansson, & Gaston-Johansson, 2007). Psychological symptoms of distress are reported in 41% of patients with newly diagnosed breast cancer, with 11% diagnosed with major depressive

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