

# Integrative Review on the Effectiveness of Internet-Based Interactive Programs for Women With Breast Cancer Undergoing Treatment

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Zhu and Chan completed the data collection and provided the statistical support and analysis. All of the authors contributed to the conceptualization and design and the manuscript preparation.

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**Problem Identification:** Internet-based interactive programs have been developed to address health needs for women with breast cancer undergoing treatment, but evidence has been inadequate to establish the effectiveness of these programs. This article aims to synthesize studies published in English or Chinese regarding the effectiveness of these programs on the outcomes of symptom distress, social support, self-efficacy, quality of life, and psychological well-being for women with breast cancer undergoing treatment.

**Literature Search:** CINAHL Complete, MEDLINE®, Mosby's Nursing Index, PsycINFO®, Scopus, Web of Science, Joanna Briggs Institute, Cochrane Library, Embase, and China National Knowledge Infrastructure. Databases were searched from the start of the database to April 2015.

**Data Evaluation:** 174 articles were retrieved, yielding 23 eligible articles. A manual search led to an additional five eligible articles. After 10 were excluded, 3 qualitative and 15 quantitative studies were evaluated. Data were analyzed to identify similarities and differences across articles.

**Synthesis:** Internet-based interactive programs moderated by healthcare professionals have demonstrated positive effects on women's self-efficacy, symptom distress, and psychological well-being, but inconclusive effects have been found on social support and quality of life.

**Conclusions:** Moderated Internet-based interactive programs are a promising intervention for women with breast cancer undergoing treatment.

**Implications for Research:** Studies with more robust research designs and theoretical frameworks and conducted in different countries and cultures are warranted to elucidate the effectiveness of these programs.

Women with breast cancer who are undergoing active treatment, including surgery, chemotherapy, or radiation therapy, may suffer from a number of symptoms that often interfere with their lives (Cheng, Wong, Ling, Chan, & Thompson, 2009; Dodd, Cho, Cooper, & Miaskowski, 2010). Symptom management is crucial for women with breast cancer, and the reduction of symptom distress is a critical indicator of successful psychosocial support (Ruland et al., 2013). Self-efficacy is a crucial concept in symptom management because it determines how women think, feel, self-motivate, and perform (Bandura, 1977). Social support also plays an important role in how women with breast cancer deal with their diagnoses and treatments (Lou, Yates, McCarthy, & Wang, 2013; Smith et al., 2011). Patients' symptom distress, self-efficacy, and social support are three interrelated components that influence a person's ability to cope with chronic disease (Hunt et al., 2012; Lou et al., 2013). In addition, women with breast cancer undergoing treatment are reported to experience poor quality of life (QOL) and psychological well-being (So et al., 2010; Tsitsis & Lavdaniti, 2014). Therefore, healthcare