

# The Breast Cancer Treatment Response Inventory: Development, Psychometric Testing, and Refinement for Use in Practice

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**Purpose/Objectives:** To describe the development, testing, and utility of the Breast Cancer Treatment Response Inventory (BCTRI), an instrument that captures the symptom experience of women with breast cancer.

**Data Sources:** Journal articles and results of research studies used to establish BCTRI psychometric properties.

**Data Synthesis:** The tool is a valid and reliable method to determine and monitor numbers of symptoms, the severity of those symptoms, and the amount of distress experienced by patients. It is an easily and quickly employed assessment tool to guide and evaluate interventions.

**Conclusions:** The BCTRI has strong psychometric properties and is a valid and reliable instrument to measure symptom experience among populations of breast cancer survivors.

**Implications for Nursing:** Data collected using the BCTRI provide information that healthcare providers can use to target interventions toward symptoms that are most troublesome or distressful. The BCTRI can be used at meaningful points in treatment, recovery, and ongoing survivorship to explore the emerging concept of symptom experience in samples that reflect socioeconomically and ethnically diverse populations.

## Key Points . . .

- ▶ Women with breast cancer report continued distress resulting from ongoing symptoms associated with the diagnosis of breast cancer in the physical, psychological, social, and spiritual domains.
- ▶ In addition to emerging research methodologies that test the effects of interventions on nursing-sensitive outcomes, multi-dimensional instruments that conceptualize and operationalize the breast cancer symptom experience are needed.
- ▶ The Breast Cancer Treatment Response Inventory demonstrated strong psychometric properties in testing among women with breast cancer and has potential to be a valuable tool to examine symptom experience so that nursing interventions can be aimed at sources of distress.

Approximately 2,356,795 women in the United States have a history of breast cancer (Ries et al., n.d.); most of them continue to experience distress related to the physical, psychological, social, and spiritual aspects of the breast cancer experience (Budin, 1998; Byar, Berger, Bakken, & Cetak, 2006; Ferrell, Grant, Funk, Otis-Green, & Garcia, 1997, 1998; Meraviglia, 2006). Despite improvements in surgery and radiation therapy, long-term localized symptoms persist (Armer, Radina, Porock, & Culbertson, 2003; Carpenter et al., 1999; Erickson, Pearson, Ganz, Adams, & Kahn, 2001; Oncology Nursing Society [ONS], n.d.), and chemotherapy regimens produce symptoms that may continue for five or more years after therapy (Byar et al.; Ganz et al., 2002; Knobf, 2006; Longman, Braden, & Mishel, 1999). Treatment recommendations for women with hormonally responsive breast cancer extend beyond five years, thus adding to their symptom experience (National Comprehensive Cancer Network [NCCN], 2007a).

Symptom experience must be consistently defined conceptually and operationally (Armstrong, 2003; Dodd, Janson, et al., 2001; Goodell & Nail, 2005; Ropka & Spencer-Cisek,

2001) so that healthcare professionals can evaluate and address what survivors perceive as important and requiring attention. Armstrong wrote about a need to understand the meaning that the symptom experience has on life so that interventions can be targeted to provide survivors with needed adjustment and coping strategies. With that information, healthcare professionals can respond more adequately to the needs of breast cancer survivors (Armstrong; Dodd, Miaskowski, & Lee, 2004; Goodell & Nail). Until resources are targeted toward breast cancer survivors' specific needs and concerns, many women will continue to resume their lives with inadequate resources and support. This article discusses the conceptualization of symptom experience followed by

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