

# Fatigue in Breast Cancer Survivors: The Impact of a Mind-Body Medicine Intervention

Susan E. Appling, PhD, CRNP, Susan Scarvalone, MSW, LCSW-C, Ryan MacDonald, PhD, Maureen McBeth, MPT, and Kathy J. Helzlsouer, MD, MHS

**P**atients with breast cancer face the difficult task of recovery from the effects of treatment and adapting to life as cancer survivors. Fatigue is one of the most common lingering symptoms after breast cancer treatment, affecting as many as 40% of survivors, continuing for as long as a decade, and often hindering recovery (Andrykowski, Curran, & Lightner, 1998; Arndt, Merx, Stegmaier, Ziegler, & Brenner, 2005; Berglund, Bolund, Fornander, Rutqvist, & Sjöden, 1991; Bower et al., 2000, 2006; Fan et al., 2005; Jacobsen et al., 2007; Lindley, Vasa, Sawyer, & Winer, 1998; Meeske et al., 2007; Servaes, Gielissen, Verhagen, & Bleijenberg, 2007; Servaes, Verhagen, & Bleijenberg, 2002). Fatigue is a complex, multidimensional symptom with many contributing factors. Pain, sleep disturbance, depression, anxiety, decreased physical activity, cognitive problems, weight gain, and menopausal symptoms are associated with fatigue (Bennett, Goldstein, Lloyd, Davenport, & Hickie, 2004; Bower et al., 2000, 2006; Couzi, Helzlsouer, & Fetting, 1995; Jacobsen, Donovan, & Weitzner, 2003; Meeske et al., 2007; Nieboer et al., 2005; Servaes et al., 2002; Young & White, 2006), and overall quality of life worsens because of this persistent symptom (Alexander, Minton, Andrews, & Stone, 2009; Andrykowski et al., 1998; Arndt et al., 2005; Broeckel, Jacobsen, Horton, Balducci, & Lyman, 1998; So et al., 2009). With improvements in early detection and treatment options for breast cancer, the number of survivors has increased dramatically; currently, more than 2.6 million breast cancer survivors are living in the United States (Howlader et al., 2011). Several reports emphasize the need for additional research on long-term effects of cancer and its treatment, as well as how to assist patients in overcoming the challenges they face as they transition from active treatment to long-term survivorship (Hewitt, Greenfield, & Stoval, 2006; National Cancer Institute, 2004).

The multifaceted nature of post-treatment persistent fatigue calls for a multipronged approach; however,

**Purpose/Objectives:** To evaluate a mind-body medicine (MBM) program for its impact on persistent fatigue following breast cancer treatment.

**Design:** Quasiexperimental.

**Setting:** An urban community hospital and a health department in a semirural county, both in Maryland.

**Sample:** 68 breast cancer survivors who were at least six months postadjuvant chemotherapy and/or radiation therapy and had a baseline fatigue score of 50 or lower per the vitality subscale of the SF-36® Health Survey.

**Methods:** A 10-week group-based MBM program for breast cancer survivors with persistent fatigue was evaluated using a pretest/post-test study design.

**Main Research Variables:** Sustained change in fatigue severity as measured by the Piper Fatigue Scale (PFS), SF-36 vitality subscale, and 10 cm visual analog scale (VAS).

**Findings:** Participants were 2.6 years post-treatment, with a mean age of 56.8 years. Overall, fatigue scores improved by 40%. The mean PFS improved from a score of 6 (SD = 1.6) at baseline to 4.2 (SD = 2) at the end of the program ( $p < 0.001$ ), with additional improvement at two months and sustained at six months ( $\bar{X} = 3.6$ , SD = 2,  $p < 0.001$ ). Results from the SF-36 and VAS also showed significant improvement in fatigue ( $p < 0.001$ ).

**Conclusions:** The findings support the use of a holistic MBM intervention to reduce persistent fatigue in breast cancer survivors. Results should be confirmed with a randomized clinical trial.

**Implications for Nursing:** Nurses and other healthcare team members can effectively impact persistent fatigue in breast cancer survivors through the use of a multipronged MBM program.

few studies have taken a multimodal approach to preventing or treating cancer-associated fatigue. Most intervention studies have examined the impact of exercise on fatigue (Cramp & Daniel, 2008; Duijts, Faber, Oldenburg, van Beurden, & Aaronson, 2011; McNeely et al., 2006; Velthuis, Agasi-Idenburg, Aufdemkampe, & Wittink, 2010). In addition, interventions to lessen