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

Patients 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, & Lichtner, 1998; Arndt, Merx, Stegmaier, Ziegler, & Brenner, 2005; Berglund, Bolund, Forndander, Rutqvist, & Sjödén, 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, 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...