Mindfulness as an Intervention for Breast Cancer Survivors

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Breast cancer survivors often turn to complementary health approaches (CHAs) to address the effects of treatment. Mindfulness-based stress reduction (MBSR) is a type of CHA that uses attentional and meditative exercises to minimize stress and increase awareness of the present. This article aims to determine whether adequate evidence-based research with uniform methodologies and outcomes to support MBSR as an intervention for breast cancer survivors exists.

At a Glance
• One challenge for oncology nurses is being able to recognize which patients are likely to seek out CHAs to deal with various effects of treatment.
• A discussion of the use of CHAs with interested patients will help to maximize benefits, minimize risk, and facilitate integration of safe and effective use of CHAs into conventional cancer care.
• Additional research is needed to support the use of MBSR as an effective intervention for breast cancer survivors.

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The challenge of dealing with a diagnosis of breast cancer and the impact of treatment can have implications that may span the continuum of care, from diagnosis to survivorship. As many as 35% of women diagnosed with and treated for breast cancer have reported long-term effects on quality of life (QOL) and general psychological distress (Kieviet-Stijnen, Visser, Garssen, & Hudig, 2008). Increased consideration needs to be given to how patients are surviving after cancer treatment, not just if they survive, which is generally reported as an outcome measure of breast care quality (Ayanian & Jacobsen, 2006).

The purpose of this article is to determine if adequate scientific data exist on the benefits of mindfulness-based stress reduction (MBSR) to implement this program at the authors’ institution, the Perlmutter Cancer Center at New York University Langone Medical Center in New York, as an intervention for breast cancer survivors who are experiencing a range of side effects related to their treatment.

Finding the Evidence

Symptom clusters (SCs) were initially described by Dodd, Miaskowski, and Paul (2001) as multiple concurrent symptoms that may or may not be interrelated but are thought to have an adverse effect on patient outcomes. However, identifying a pattern of symptom occurrence is not enough to verify that a cluster exists. Using factor analysis, Molassiotis, Wengström, and Kearney (2010) suggested that, if two or more symptoms are found to share a common component, these symptoms can be inferred to be an SC. The patient experience of symptoms is also compounded by the presence of more than one symptom within the cluster and may vary with the phases of the disease.

A better understanding of the complexity of SCs continues to evolve as more longitudinal studies are conducted with patients across the cancer trajectory. Thomas et al. (2014) found that, although various definitions of SCs exist in the literature, three major SCs (somatic, psychological, nutrition) that are consistent over time could be identified. Minimal research exists that considers the relationship between the SCs and the sixth vital sign in cancer care: distress (Holland & Bultz, 2007).

Kidwell et al. (2014) suggested that the management of symptoms and related clusters is essential to improve QOL but may also have an impact on breast cancer outcomes if it leads to increased adherence to treatments, such as aromatase inhibitor therapy. This premise is aligned with the Health and Medicine Division of the National Academies of Sciences, Engineering, and Medicine’s (2005) components of survivorship care, which include interventions to alleviate physical and psychological symptoms that persist or occur beyond active cancer treatment and to improve QOL.

Complementary Health Approaches

An underlying premise of any intervention is that treatment of one symptom may facilitate improvements in the other symptoms included in the SC (Thomas et al., 2014). Miaskowski,
Dodd, and Lee (2004) noted that these symptoms are a major problem for patients because their management is often the responsibility of the patients themselves. This may account for the prevalence of complementary health approaches (CHAs) used by people with cancer and survivors. Cancer survivors will often turn to CHAs to address persistent side effects of treatment.

The term complementary refers to nonmainstream approaches to care used together with conventional medicine, and alternative is in place of conventional medicine (National Center for Complementary and Alternative Health [NCCAH], 2016). Although both CHAs and complementary and alternative medicine (CAM) are considered to be nonconventional, the main difference is that CAM is not used as a complement to traditional medical methods. In an international comprehensive systematic review of CAM by Horneber et al. (2011), an average of 40% of patients with cancer reported current or previous use of CAM therapies, and this number has steadily increased since 2000. Mao, Palmer, Healy, Desai, and Amsterdam (2011) also observed that CHA use is more prevalent in cancer survivors than in the general U.S. population, with 65% of cancer survivors reporting ever using CHAs. This number also appears to be increasing in specific subgroups, such as breast cancer survivors (Boon, Olatunde, & Zick, 2007).

Interest in Complementary Health Approaches

An overall increase in the use of mind and body CHAs has been noted, and a higher prevalence of mind and body techniques has been observed among younger adults aged 18–44 years (Clarke, Black, Stussman, Barnes, & Nahin, 2015). Clarke et al. (2015) also found that non-Hispanic Caucasian adults had an increased pattern of CHA usage, whereas Hispanic and non-Hispanic African American adults had a decreased pattern of CHA usage, from 2002–2012. In addition, compared to native-born Americans, a lower rate of CHA use was observed among immigrants who have been in the United States for less than 10 years. This may be attributable to differences in services covered by health insurance, lack of awareness of CHAs, and cultural differences (Su, Li, & Pagan, 2008).

The trend toward CHAs is consistent with Orem's (1985) theory of self-care deficit where “self-care is the practice of activities that individuals initiate and perform on their own behalf in maintaining life, health, and well-being” (Dodd & Miaskowski, 2000, p. 302). It also suggests a need for ongoing efforts of healthcare providers to understand and consider these health practices in relation to current cancer care, as well as the understanding that the use of CHAs may or may not be provided within an integrative healthcare program associated with a cancer center.

Mindfulness-Based Stress Reduction

MBSR is a type of mindfulness-based therapy (MBT) and a meditation-centered intervention directed at increasing nonjudgmental awareness through attentional and meditative exercises. MBSR's origins arise from Hinayana Buddhist traditions and were developed by Jon Kabat-Zinn in 1979 (Greene, Philip, Poppito, & Schnur, 2012). The goal of mindfulness is “to maintain awareness moment by moment, disengaging oneself from strong attachment to beliefs, thoughts, or emotions, thereby developing a greater sense of emotional balance and well-being” (Ludwig & Kabat-Zinn, 2008, p. 1350).

Through MBSR, an individual develops understanding of personal responses to stress and how to modify these responses to give attention fully to the present moment (Chandwani et al., 2012). MBSR is generally an eight-week intervention with a trained instructor focusing on sustained attention to mindfulness, meditation, and yoga practice in addition to daily home practice (Carlson et al., 2013).

Review of the Literature

The mission of the NCCAH (2016) is to define, through rigorous scientific investigation, the usefulness and safety of CHAs and their roles in improving health care. Although MBSR is popular, limited randomized, controlled studies that meet scientific standards for rigor and demonstrate an evidence-based benefit for breast cancer survivors exist. Generalizability of results from these studies is also a concern because study participation is usually by self-selection by eligible patients based on relevant treatment choices (Würtzen et al., 2013).

Smith, Richardson, Hoffman, and Pilkinson (2005) conducted a systematic review of MBSR research using multidisciplinary databases querying MBSR as supportive therapy in cancer care. However, many of the studies reviewed by Smith et al. (2005) had methodologic limitations, and they suggested the need for methodologically rigorous research. Similarly, Ledesma and Kumano's (2009) meta-analysis had a limited number of eligible studies because of methodologic inconsistencies and inadequate reporting of results. Hofmann, Sawyer, Witt, and Oh (2010), through a meta-analytic review of MBTs, found that most studies about MBSR were qualitative, not quantifiable, reviews of the treatment effects. These studies also lacked uniformity in the intervention program and its design, providing limited data on safety and efficacy, and a majority also had small samples (Hofmann et al., 2010).

Likewise, although Matchim and Armer (2007) reported that the literature was sparse, findings pointed to a potential positive impact of MBSR on the health and well-being of patients with cancer. Greene et al. (2012) identified similar limitations in the current research, but he acknowledged that self-reported outcomes have been predominantly positive. Therefore, these interventions were considered to possess a high degree of clinical relevance in assisting patients with cancer to manage their disease (Greene et al., 2012).

Conclusion

The diagnosis of breast cancer and the impact of treatment have implications that can span the continuum of care. The challenge for the oncology nurse is to recognize which patients are likely to seek out CHAs (Würtzen et al., 2013) and to encourage them to choose safe evidence-based interventions. The Oncology Nursing Society's Putting Evidence Into Practice resources are one source of evidence-based interventions.
A discussion of the use of CHAs with interested patients will help to maximize benefits, minimize risk, and facilitate integration of safe and effective CHA use into conventional cancer care. This is with the understanding that limited evidence is available to support patients making informed decisions about their treatment.

The goal of this assessment was to determine if adequate evidence exists to support the benefits of MBSR to implement this program at the authors’ institution. After careful consideration, the authors concluded that the evidence is insufficient and that the research lacks uniform methodologies and outcomes to support MBSR as an intervention for breast cancer survivors. Future research should focus on describing the range of symptoms related to cancer treatment and demonstrate if MBSR improves them. MBSR is a complex, time-consuming intervention, but the opportunity to implement some elements into clinical practice for select patients may exist. However, this should be done by a healthcare provider who is knowledgeable of the principles of MBSR, aware of the complexity of patient symptoms, and can identify measurable outcomes.

References


