

# Pain and Spirituality Outcomes Among Women With Advanced Breast Cancer Participating in a Foot Reflexology Trial

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**OBJECTIVES:** To examine pain and spirituality, demographic and clinical factors associated with pain and spirituality, the contribution of spirituality to experiences of pain over time, and how pain and spirituality relate to engagement with a caregiver-delivered intervention.

**SAMPLE & SETTING:** Women with advanced breast cancer (N = 256) enrolled in a home-based randomized controlled trial of foot reflexology.

**METHODS & VARIABLES:** Secondary analyses were conducted with baseline and postintervention data. Stepwise model building, linear mixed-effects modeling, and negative binomial regression were used.

**RESULTS:** Participants who were younger, not married or partnered, not employed, or receiving hormonal therapy had increased odds of higher pain levels. Those who were older, non-White, or Christian had increased odds of higher spirituality. Spirituality's contribution to pain was not significant over time.

**IMPLICATIONS FOR NURSING:** Women in this sample experienced moderate pain, on average, at baseline. Women with specific demographic and clinical characteristics may require additional support with pain management and spiritual care.

**KEYWORDS** pain; pain management; spirituality; integrative oncology; breast cancer

**ONF, 48(1), 31-43.**

**DOI** 10.1188/21.ONF.31-43

Pain is a distressing experience with interacting sensory, cognitive, and emotional components, which may be associated with actual or perceived tissue damage (Bushnell et al., 2013; International Association for the Study of Pain, 1979; Wang et al., 2016; Williams & Craig, 2016). As many as 83% of women with advanced breast cancer report pain (Puetzler et al., 2014), indicating that novel approaches to managing pain in this population are needed. Pain can be the result of cancer, treatment, or comorbidities (Posternak et al., 2016), and it can adversely affect an individual's quality of life (QOL) (Rodriguez et al., 2019). Spirituality may positively alter the experience of pain in women with advanced breast cancer, but this is one area that has not yet been adequately investigated (Flanigan et al., 2019; Visser et al., 2018). The overarching purpose of this study is to examine the contribution of spirituality to experiences of pain over time in these women.

Conceptually, this study is grounded in an adaptation of Reed's (2015) theory of self-transcendence, a theory that has been applied in various samples of individuals with breast cancer (Matthews & Cook, 2009; Thomas et al., 2010). In the theory of self-transcendence, vulnerability (awareness of mortality) serves as a resource to enhance self-transcendence (expand self-boundaries in various ways), and self-transcendence helps to facilitate well-being (subjective feeling of health or wholeness). Personal and contextual factors may influence other components of the model (Reed, 2015). Modified and applied to this work, spirituality is an expression of self-transcendence, pain level is the outcome indicating one aspect of well-being (where lower pain serves as an indicator of higher well-being), and demographic and clinical factors may contribute to pain and spirituality.