Breast cancer is the most common cancer in women in the United States. About 3.6 million female breast cancer survivors were living in the United States in 2016, and 93% of those survivors were aged 50 years or older (Miller et al., 2016). In addition, about 75%–80% of women with breast cancer are postmenopausal at the time of diagnosis (DeSantis et al., 2016). Of those, 75%–79% have hormone receptor–positive disease (Cheang et al., 2015; Clark, Osborne, & McGuire, 1984; Osborne, 1998), and a large portion will receive adjuvant aromatase inhibitor (AI) therapy. Use of endocrine therapy with an AI, such as anastrozole, letrozole, or exemestane, has improved the disease-free survival and overall survival of postmenopausal women with early-stage disease (Schiavon & Smith, 2014); however, negative sequelae associated with AI therapy may include changes in cognitive function. An estimated 25%–75% of women with breast cancer experience changes in cognitive function with disease and treatment (Wefel et al., 2004). Cognitive decline compromises psychological well-being and interferes with work, decision making, the ability to perform daily activities efficiently, and adherence to cancer therapy (Bender et al., 2014; Bender & Thelen, 2013). Multiple factors likely contribute to changes in cognitive function, including mood, sleep problems, concomitant medications, disease-related factors, and cancer therapy (Bender & Thelen, 2013).

Most research in this area has focused on changes in cognitive function with chemotherapy (Myers, 2012). Deterioration in multiple cognitive domains has been observed in women receiving selective estrogen receptor modulators (SERMs), such as tamoxifen (Castellon et al., 2004; Chen et al., 2017;