

# Depressive Symptoms and Associated Health-Related Variables in Older Adult Breast Cancer Survivors and Non-Cancer Controls

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**OBJECTIVES:** To examine the prevalence of depressive symptoms and associated risk factors in older adult breast cancer survivors (BCS) and age-matched non-cancer controls.

**SAMPLE & SETTING:** Using the Surveillance, Epidemiology, and End Results–Medicare Health Outcome Survey linked dataset from 1998 to 2012, BCS and non-cancer controls aged 65 years or older were identified.

**METHODS & VARIABLES:** Depressive symptoms, comorbidities, functional limitations, socio-demographics, and health-related information were examined. Univariate and multivariable logistic regression and marginal models were performed.

**RESULTS:** 5,421 BCS and 21,684 controls were identified. BCS and non-cancer controls had similar prevalence of depressive symptoms. Having two or more comorbidities and functional limitations were strongly associated with elevated risk of depressive symptoms in BCS and non-cancer controls.

**IMPLICATIONS FOR NURSING:** Having multiple comorbidities and multiple functional status are key factors associated with depressive symptoms in older adult BCS and non-cancer controls. Nurses are in an ideal position to screen older adult BCS and non-cancer controls at risk for depressive symptoms.

**KEYWORDS** breast cancer; older adults; depressive symptoms; comparison; healthcare professionals

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Depressive symptoms are a common and serious problem experienced by many breast cancer survivors (BCS) that may lead to long-term quality-of-life issues (Jones et al., 2015). Numerous studies have evaluated the presence of depression among BCS, but prior studies are mainly focused on middle-aged women (aged 40–64 years). In a systematic review by Carreira et al. (2018) of 60 studies, only 5% of the entire combined study cohort were aged 70 years or older. Older BCS have been shown to be vulnerable to psychological problems, comorbid illnesses, and functional limitations, which could lead to depressive symptoms (Jones et al., 2015; Maass et al., 2015; Magnuson et al., 2019; Williams et al., 2016). Epidemiologic studies of older adults with cancer (aged 65 years or older) suggest that this population may be more vulnerable to depressive symptoms than older adults who do not have cancer (Avis & Deimling, 2008; Frazzetto et al., 2012; Mohile et al., 2011; Reyes-Gibby et al., 2006). However, few studies have focused on older BCS compared to older adults without a history of cancer.

Sociodemographic and health factors have been associated with depressive symptoms among older BCS (Caplette-Gingras & Savard, 2008; Mogal et al., 2017; Neuner et al., 2014; Patsou et al., 2018; Stommel et al., 2004; Williams et al., 2019). Specifically, the presence of comorbidities and functional limitations have been found to be significant risk factors for depressive symptoms in both the general geriatric population (Cahoon, 2012; Chang et al., 2016; Read et al., 2017; Vink et al., 2008) and older adults with cancer (Klapheke et al., 2020; Ladaninejad et al., 2019; Weiss Wiesel et al., 2015), including breast cancer