

# Symptom Clusters and Quality of Life in Older Adult Breast Cancer Survivors

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**B**reast cancer accounts for one in four cancer diagnoses in women in the United States (American Cancer Society [ACS], 2009). Gender and age are the two greatest risk factors for developing the disease, with older women having a higher likelihood of being diagnosed than younger women (ACS, 2009). From 2003–2007, the median age of women diagnosed with breast cancer was 61 and, as of January 2007, about 2.5 million women in the United States had a history of breast cancer (National Cancer Institute, 2010). That number is expected to increase as a large cohort of middle-aged women move into older adulthood and their risk for breast cancer is increased. However, with early detection and improved treatment effectiveness, these women may survive and live for many years after treatment.

As breast cancer survivors age, they can expect to experience a variety of symptoms that may be late effects of cancer, its treatment, the result of normal aging processes, or chronic illnesses (Heidrich, Egan, Hengudomsub, & Randolph, 2006). In breast cancer survivors, those symptoms have been found to negatively affect well-being and have been associated with an increased incidence of depression and anxiety (Kornblith & Ligibel, 2003; Manning-Walsh, 2005a). Similar relationships have been found in other groups of cancer survivors. Mirabeau-Belle et al. (2009) found that fatigue, nausea, vomiting, and sleep disturbance in ovarian cancer survivors were correlated with worse emotional states, lower spirituality scores, increased fear of recurrence, and lower quality of life. Deimling, Bowman, Sterns, Wagner, and Kahana (2006) observed a strong correlation between increased number of symptoms and worry in a sample of breast, colorectal, and prostate cancer survivors; worry was one of the strongest predictors of anxiety and depression.

Effective symptom management may be able to lessen or negate these effects and improve breast cancer survivors' quality of life. How to address the multiple symptoms older adult cancer survivors experience is an important issue. The concept of symptom clusters has emerged as an important topic in oncology research, but the research has not adequately addressed the unique

**Purpose/Objectives:** To identify symptom clusters in older adult breast cancer survivors (ages 65–97 years) and examine whether symptom clusters are related to demographic, health, and quality-of-life variables.

**Design:** Factor analysis to identify possible symptom clusters. The resulting clusters then were correlated with quality-of-life measures.

**Setting:** Phone interviews between the participants and a trained research nurse.

**Sample:** 192 breast cancer survivors ( $\bar{X}$  age = 70).

**Methods:** This was a secondary data analysis of the baseline measures of demographics, health history, symptom bother, and physical, mental, and existential dimensions of quality of life. Exploratory and confirmatory factor analyses were conducted as well as multiple indicator multiple cause modeling and partial correlation analyses to assess the relationships among clusters and demographic, health history, and quality-of-life measures.

**Main Research Variables:** Self-reported symptom bother, demographics such as age and education level, health history, and quality of life.

**Findings:** Seven clinically distinct symptom clusters tapping 36 different symptoms in older adult breast cancer survivors were found. These symptom clusters were significantly related to multiple dimensions of quality of life.

**Conclusions:** Older adult breast cancer survivors experience multiple concurrent symptoms that appear to cluster. Identifying symptom clusters helps to elucidate possible intersymptom relationships which may lead to the design of more effective symptom management interventions for older adult breast cancer survivors.

**Implications for Nursing:** Older adult breast cancer survivors should be assessed for a wide variety of symptoms if clinicians hope to identify and understand intersymptom relationships. Such assessment would enable more comprehensive symptom management.

symptom experience of older adult cancer survivors. In addition, a focus on symptom clusters may be important in generally understanding the symptom experience occurring in numerous chronic illnesses or in old age.

Research on symptom clusters has been based on the idea that symptoms are not independent entities but,