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## Gender, Symptom Experience, and Use of Complementary and Alternative Medicine Practices Among Cancer Survivors in the U.S. Cancer Population

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omplementary and alternative medicine (CAM) therapies are defined as a group of diverse medical and healthcare treatments, practices, and products not considered part of conventional medicine but often used to prevent illness, promote health, avert disease recurrence, and manage symptoms related to cancer and chronic illness (Chatwin & Tovey, 2004; DiGianni, Garber, & Winer, 2002; Eisenberg et al., 1998; Ernst & Cassileth, 1998; Fouladbakhsh, 2007; Fouladbakhsh & Stommel, 2007, 2008; Fouladbakhsh, Stommel, Given, & Given, 2005; Richardson, Sanders, Palmer, Greisinger, & Singletary, 2000). The use of CAM by cancer survivors is widespread, although wide variations exist depending on the specific cancer diagnosis as well as the specific CAM therapy (Fouladbakhsh & Stommel, 2008). Population estimates reveal that more than 39% of individuals in the United States diagnosed with cancer at some point in their lifetime have used CAM (Fouladbakhsh & Stommel, 2008). In 2002, 2.9 million cancer survivors had used CAM, with more than 1.2 million reporting use of CAM practices, over 60% of them women (Fouladbakhsh & Stommel, 2008). In addition, it has been noted that the prevalence of CAM use in the past 10 years is expected to continue (Tindle, Davis, Phillips, & Eisenberg, 2005). Therefore, it is highly probable that oncology nurses and other healthcare providers will likely encounter a large number of CAM practice users in their patient population. A better understanding of what CAM products, services, and practices are used for symptom management is vital to providing quality care and increasing positive health outcomes that enhance quality of life (Fouladbakhsh et al., 2005; Jordan & Delunas, 2001; Lengacher et al., 2006; Ott, 2002).

## Significance and Background

CAM therapies are usually viewed as an adjunct to mainstream cancer care to assist with the management **Purpose/Objectives:** To identify relationships among gender, physical and psychological symptoms (pain, insomnia, fatigue, and depression), and use of specific complementary and alternative medicine (CAM) practices among survivors in the U.S. cancer population.

**Design:** Secondary analysis of the 2002 National Health Interview Survey (NHIS). The CAM Healthcare Model, an extension of the Behavioral Model for Health Services Use, guided the study.

Setting: United States.

**Sample:** 2,262 adults (aged 18 years and older) diagnosed with cancer representing more than 14.3 million cancer survivors in the United States.

**Methods:** NHIS interview data on use of CAM practices (diet, yoga, tai chi, qigong, meditation, guided imagery, relaxation, and deep breathing) were examined in relationship to gender and symptoms. Analysis was conducted using Stata® 9.2 software for population estimation. Binary logistic regression, the primary statistical model employed in the analysis, focused on between-subject differences in practice use.

**Main Research Variables:** Dichotomous outcome variables included use of at least one CAM practice and use of specific individual CAM practices. Independent variables included gender, age, education, race, provider contact, cancer diagnosis, pain, insomnia, fatigue, depression, and health status.

**Findings:** CAM practice use was more prevalent among female, middle-aged, Caucasian, and well-educated subjects. Pain, depression, and insomnia were strong predictors of practice use, with differences noted by gender and practice type.

**Conclusions:** CAM practices are widely used in the U.S. cancer population, especially among women. Symptom experience influences likelihood of use, with increased odds when men report symptoms.

**Implications for Nursing:** Study findings inform oncology nurses on the benefits of integrating self-care CAM practices in relationship to gender into the symptom management care plan for cancer survivors. Findings reported in this study will help guide future CAM practice intervention studies.