

# A Systematic Review of Nonpharmacologic Interventions for Treatment-Related Symptoms in Women With Ovarian Cancer

Lorie L. Davis, MSN, RN, OCN®, and Janet S. Carpenter, PhD, RN, FAAN



© Purestock/Thinkstock

**Background:** Women with ovarian cancer have a continued high symptom burden in comparison to other cancer survivors secondary to ongoing chemotherapy treatment. Prolonged or ineffective management of treatment-related symptoms can contribute to treatment noncompliance, worsening of symptoms, and reduced health-related quality of life.

**Objectives:** This review of the literature was conducted to describe experimental and quasi-experimental research addressing nonpharmacologic interventions for the treatment-related symptoms of sleep disturbance, pain, anxiety, depression, and low energy or fatigue in women with ovarian cancer and to critique the quality of interventions.

**Methods:** A systematic search of the literature was conducted in PubMed and yielded 136 articles. Eight articles met the inclusion criteria and were evaluated.

**Findings:** Nonpharmacologic interventions for treatment-related symptoms were complex, with an average of 4.4 components. Intervention delivery, setting, and exposure varied widely across studies. Only three studies contained details sufficient to replicate the intervention. Lack of clarity in intervention reporting may explain perceptions of clinically inefficacious symptom management in this context. Greater attention to reporting would facilitate better translation of interventions into practice and when addressing complex cancer symptom clusters.

Lorie L. Davis, MSN, RN, OCN®, is a predoctoral fellow and Janet S. Carpenter, PhD, RN, FAAN, is an associate dean for research and scholarship, both in the School of Nursing at Indiana University in Indianapolis. The authors take full responsibility for the content of the article. The authors did not receive honoraria for this work. The content of this article has been reviewed by independent peer reviewers to ensure that it is balanced, objective, and free from commercial bias. No financial relationships relevant to the content of this article have been disclosed by the authors, planners, independent peer reviewers, or editorial staff. Davis can be reached at [davislor@iupui.edu](mailto:davislor@iupui.edu), with copy to editor at [CJONEditor@ons.org](mailto:CJONEditor@ons.org). (Submitted September 2014. Revision submitted December 2014. Accepted for publication December 14, 2014.)

Key words: chemotherapy; nonpharmacologic interventions; ovarian cancer; survivorship; symptom clusters; symptom management

Digital Object Identifier: 10.1188/15.CJON.19-05AP

Ovarian cancer (OC) affects more than 21,000 American women annually (American Cancer Society [ACS], 2015). OC continues to have the highest mortality rate of all cancers affecting the female reproductive system, with more than 14,000 estimated deaths expected in the United States in 2015 and a five-year survival rate of 45% for all stages (ACS, 2015; Almadrones-Cassidy, 2010; Hess & Stehman, 2012). Despite advances in treatment, women with OC have demonstrated little improvement in survival, although these women have experienced slowed progression of the disease, ultimately extending life with active disease (Hess & Stehman, 2012; Riestler et al., 2014). Most women present with advanced disease

at diagnosis; 61% of cases are diagnosed at a distant stage (ACS, 2015). Many women respond to initial surgery and postoperative chemotherapy; however, the majority of women experience disease recurrence, requiring ongoing chemotherapy treatment (Davis, Tinker, & Friedlander, 2014; Riestler et al., 2014; Sjoquist et al., 2013). Therefore, women with OC have a continued high symptom burden in comparison to other cancer survivors (Fox & Lyon, 2007).

Alleviating treatment-related symptoms is essential in cancer care (Cleeland et al., 2013). The concept of symptom clusters, a current research priority, suggests that two or more co-occurring symptoms may not be independent entities but rather symptoms interacting synergistically (Aktas, 2013; Barsevick &