

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

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**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.

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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; Riester 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; Riester 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 &