

# Exercise Interventions to Manage Fatigue in Women With Gynecologic Cancer: A Systematic Review

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**PROBLEM IDENTIFICATION:** Fatigue has a negative impact on the quality of life of patients with cancer. The aim of this review is to evaluate studies on the effectiveness of exercise interventions in reducing fatigue in women with gynecologic cancer.

**LITERATURE SEARCH:** The review was conducted according to the PRISMA guidelines using the CINAHL®, MEDLINE®, EMBASE, PsycINFO®, and Cochrane Library databases. The Critical Appraisal Skills Programme was used for quality assessment.

**DATA EVALUATION:** Five studies met the inclusion criteria: three randomized, controlled trials and two single-arm trials.

**SYNTHESIS:** Evidence suggests that exercise interventions result in significant reductions in fatigue in women with gynecologic cancer. However, the current evidence is limited. Additional studies are required to address the dose-dependent outcomes of exercise interventions on fatigue in women with gynecologic cancer.

**IMPLICATIONS FOR NURSING:** Findings support the positive effects of exercise interventions in reducing fatigue in women with gynecologic cancer, suggesting that healthcare professionals may consider including exercise programs into management plans for this population.

**KEYWORDS** gynecologic cancer; fatigue; exercise; quality of life; systematic review

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A gynecologic cancer diagnosis affects multiple aspects of a woman's life, including physical and psychological health status. Gynecologic cancer refers to a malignant condition of the female reproductive system which may include ovary, vulva, vagina, cervix, uterus (womb/endometrial), uterine tube(s), and placenta (Gupta & Rajwanshi, 2013). Cervical cancer is the fourth most common cancer in women, and the seventh most common overall cancer (Ferlay et al., 2015). Fitzmaurice et al. (2015) suggested that 1 in 70 women are expected to develop cervical cancer from the time of their birth to age 79 years.

The stage of the cancer and the management options available have significant effects on survival rates. For example, the survival rate of ovarian cancer during a 10-year period is 35%, and more than 55% of the cases are diagnosed at stage III or IV (Macdonald & Palmer, 2014). In the case of endometrial cancer, however, the survival rate during a 10-year period is 78% and the majority of patients are diagnosed at an early stage of the disease (Cancer Research UK, 2015). In the United States, the five-year survival rate is 84% (American Cancer Society, 2018).

Fatigue is a particularly common and troublesome symptom that may affect daily activity levels and negatively alter the quality of life of people diagnosed with cancer (Peters, Goedendorp, Verhagen, Bleijenberg, & van der Graaf, 2016). Cancer-related fatigue (CRF) is defined as "a disturbing, persistent, subjective sense of physical, emotional, and/or cognitive fatigue or exhaustion related to cancer or cancer treatment that is not proportional to recent activity and interferes with usual functioning" (Berger et al., 2015, p. 1,012). De Raaf, de Klerk, Timman, Hinz, and van der Rijt (2012) reported that most patients with cancer