

# Exercise Among Women With Ovarian Cancer: A Feasibility and Pre-/Post-Test Exploratory Pilot Study

Xiaochen Zhang, MPH, Daniel McClean, MPH, Emily Ko, MD, Mark A. Morgan, MD, and Kathryn H. Schmitz, PhD, MPH

Zhang is a research data management specialist in the Department of Public Health Sciences in the Penn State College of Medicine at Penn State University in Hershey, PA; McClean is a research coordinator in the Department of Urogynecology, Ko is an assistant professor in the Department of Obstetrics and Gynecology, and Morgan is the chief of the Division of Gynecologic Oncology, all in the Perelman School of Medicine at the University of Pennsylvania in Philadelphia; and Schmitz is a professor and associate director of population sciences in the Department of Public Health Sciences in the Penn State College of Medicine at Penn State University in Hershey.

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All of the authors contributed to the conceptualization and design. Zhang and McClean completed the data collection. Zhang, McClean, and Schmitz provided statistical support. Zhang provided the analysis. Zhang, Ko, Morgan, and Schmitz contributed to the manuscript preparation.

Zhang can be reached at [zxchstar@gmail.com](mailto:zxchstar@gmail.com), with copy to editor at [ONFEditor@ons.org](mailto:ONFEditor@ons.org).

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**Purpose/Objectives:** To establish the feasibility and acceptability of completing a higher dose of the planned physical activity volume among women with ovarian cancer, including those undergoing active treatment.

**Design:** A pre-/post-test exercise intervention. All participants were asked to complete 225 minutes per week of physical activity for 26 weeks. Multiple supports were provided, including exercise DVDs, self-reported logs, and an objective physical activity tracker (Fitbit®).

**Setting:** Home-based exercise intervention with in-person training and telephone follow-ups.

**Sample:** 10 women with ovarian cancer who were treated within Penn Medicine in Philadelphia, Pennsylvania.

**Methods:** Home-based, in-person exercise counseling was provided by an exercise trainer weekly for the first six weeks and then monthly for a total of 26 weeks. Weekly follow-up telephone calls were used to assess exercise adherence and barriers to completing exercise, review symptom changes, and provide behavioral support.

**Main Research Variables:** Feasibility and acceptability.

**Findings:** Eight participants completed the study and achieved at least 80% of the prescribed exercise dose. Five participants were undergoing chemotherapy simultaneously. Participants experienced no adverse events during the 26-week intervention. Compared to baseline, average steps increased by 1,593 per day and moderate-intensity physical activity increased by 15 minutes per day.

**Conclusions:** A 225-minutes-per-week exercise program is feasible and acceptable in a population of patients with ovarian cancer. Participants significantly improved their physical activity during the 26-week intervention.

**Implications for Nursing:** The findings suggest that nursing professionals could recommend that women with ovarian cancer exercise 225 minutes per week regardless of cancer and/or treatment trajectory. For those experiencing aches and pains, behavioral supports and suggestions of a lower exercise dose are needed to maintain physical activity.

As the number of ovarian cancer survivors increases, concerns have shifted toward improving or maintaining quality of life (Smits, Lopes, et al., 2015). Women with ovarian cancer may experience deleterious physical and psychological sequelae resulting from cancer treatment, such as nausea, vomiting, loss of appetite, anemia, neuropathy, poor sleep, cancer-related fatigue, depression, and anxiety (Moonsammy et al., 2013). Therefore, women may become sedentary during and after ovarian cancer treatment, which may impair quality of life (Mizrahi, Naumann, et al., 2015; Thigpen et al., 2010). Physical activity can provide improvements in cardiopulmonary fitness, muscle strength, aerobic capacity, fatigue, and quality of life among women with ovarian cancer (Mizrahi, Naumann, et al., 2015; Moonsammy et al., 2013).