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Feasibility of a Brief Yoga Intervention during Chemotherapy for Persistent or Recurrent Ovarian Cancer

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Dear Editors:

Persistent or recurrent ovarian cancer is often accompanied by aversive symptoms that reduce quality of life (1,2) and effective supportive care is needed. Yoga is a promising intervention for enhancing quality of life in cancer survivors (3,4). The gentle movements and behavioral components (i.e., awareness, breathing practices) of yoga make it a uniquely suitable for improving both physical and mental health. The current study reports feasibility data from a study of a Yoga Skills Training (YST) during chemotherapy for women diagnosed with persistent or recurrent ovarian cancer. The YST was designed to teach essential aspects of yoga adapted to patients undergoing cancer treatment to reduce the common barriers to engaging in yoga (e.g., scheduling, too busy or too sick) (5).

Eligibility criteria included: (1) 18 years of age or older; (2) undergoing chemotherapy for persistent or recurrent ovarian cancer; (3) able to understand, read and write English. Of 17 women approached, 7 agreed to participate, 7 declined, and 3 were undecided during the study recruitment period (08/01/09 – 01/30/10). The 7 participants had a mean age 61.7 (SD=6.7), 42% were married, 100% were White, and 14% Hispanic. The 10 non-participants had a mean age of 69.9 (SD=13.1), 60% were married, 70% White and 30% Hispanic. Those who gave reasons for not participating stated that they were: not interested in yoga while visiting the hospital, had company, or preferred to rest.

Current anxiety and relaxation were measured with 100 mm Visual Analog Scales (VAS) before and after each YST session (6). Instructions read, “Please put a slash through this line to indicate how anxious (or relaxed) you feel” with the anchors “not at all anxious” to “as anxious as I could be.” Women individually participated in up to three fifteen-minute YST sessions during regularly scheduled chemotherapy treatments. Each session included: (1) awareness; (2) body movement; and (3) breathing/relaxation. Participants were also given a practice sheet for home use. The content of the YST was informed by manuals from the PI’s (Sohl) yoga training (7,8). All practices were consistent across patients; however, the gentle movements were adapted based on individual ability. The theme of compassion towards the self was consistently highlighted.

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During the first session anxiety decreased and relaxation increased (Figure 1). Effect sizes were large (anxiety, $d=-0.82$; relaxation, $d=0.83$) and marginally significant (anxiety, $p=0.07$; relaxation, $p=0.07$). Sample sizes for subsequent sessions were too small for statistical analysis ($n's=4, 3$). When asked about how and when they used the YST, participants responded: “When I do my morning prayers, I relax and breathe more slowly”; “The body movements most often, with breathing”; “At night, when I tried to sleep.”

This study demonstrated promising pre-post session intervention effects on relaxation and anxiety ($n=15$ needed for 80% power of a paired t-test). These preliminary results supported the feasibility of implementing a YST intervention and the need for further evaluation of YST as a means of providing yoga in a brief format to reach patients in a cancer treatment setting. Further exploration of possible differences in the current sample between the age and race of participants and non-participants, which were consistent with a previous study that reported higher use of yoga among people who were under the age of 65 and White (9), is warranted. Future research should also improve recruitment approaches to ensure the successful undertaking of a large trial. Suggested improvements are to clearly state expected benefits from participation and address common negative beliefs about yoga (10). Difficulty with attrition was also experienced due to changes in treatment location. This limitation has implications for exploring a one-time in-person intervention with follow-up sessions that may be implemented from a distance (i.e., providing a YST recording).

Although increasing evidence supports the effectiveness of yoga, there are challenges to engaging in this intervention for patients with persistent or recurrent ovarian cancer. Results suggest that even a one-time YST may be valuable for helping women to experience a greater sense of calmness during a time of uncertainty. If the YST is found to be effective in future studies, the brevity of the intervention may facilitate the integration of yoga into oncology treatment.

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Figure 1.
Actual Effects of the Yoga Skills Training