The Effects of Exercise on Body Weight and Composition in Breast Cancer Survivors: An Integrative Systematic Review

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Purpose/Objectives: To examine the research literature regarding the effects of exercise on body weight and composition in breast cancer survivors.

Data Sources: Primary studies in English published from 1989–2004, located through electronic databases, hand searches, and personal contacts.

Data Synthesis: Of 1,314 studies screened, 14 met all inclusion criteria. Body weight and composition generally were secondary endpoints. Effects on weight were less common than reduction in percentage of body fat.

Conclusions: The evidence regarding exercise as a strategy for body weight and composition management in breast cancer is sparse. Research that considers these outcomes as primary endpoints is needed. Numerous measurement issues need to be addressed in future studies.

Implications for Nursing: Exercise may help to control adverse body weight and composition changes among breast cancer survivors. Improved research that assigns these outcomes primary importance will greatly enhance clinicians' ability to assist women in body weight and composition management.

Goal for CE Enrollees

To enhance nurses' knowledge about research regarding body weight and composition among breast cancer survivors.

Objectives for CE Enrollees

1. Discuss factors known to contribute to weight gain in women who are breast cancer survivors.
2. Describe weaknesses associated with the control of variables in the studies reviewed.
3. Discuss future directions for research in body weight and composition that may yield more reliable results.

Key Points . . .

- Adverse body weight and composition changes occur during breast cancer and its treatment, and physical activity is known to decrease during treatment; however, few studies of breast cancer and exercise have focused on the outcomes of body weight and composition.
- Most studies of exercise among breast cancer survivors have involved aerobic programs or a combination of aerobic and resistance approaches that were done in a fitness facility among women who were not undergoing active treatment.
- Body weight has been less responsive to the effects of exercise than body composition in existing studies.
- To establish a sound basis for clinical practice, body weight and composition should be primary endpoints in future research that examines a variety of exercise approaches, makes an effort to adopt and describe more precise and accurate measurement techniques, assembles samples of adequate size, is of sufficient duration, carefully examines related variables such as other exercise and dietary intake, and assesses lymphedema in the context of overall body weight and composition change.

Exercise has been studied extensively and has demonstrated many benefits for cancer survivors (Baldwin & Courneya, 1997; Blanchard, Courneya, & Laing, 2001; Courneya & Friedenreich, 1997; Courneya, Friedenreich, et al., 2003; Courneya, Keats, & Turner, 2000; Courneya, Mackey, et al., 2003; Gaskin, LoBuglio, Kelly, Doss,

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