

Effect of Group Dynamics–Based Exercise Versus Personal Training in Breast Cancer Survivors

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OBJECTIVES: To determine the feasibility and preliminary effectiveness of a group dynamics–based exercise intervention versus a personal training intervention for increasing physical activity (PA), physical fitness, and quality of life (QOL) in post-treatment breast cancer survivors.

SAMPLE & SETTING: 26 women with stage I or II breast cancer who attended intervention activities at a local academic institution.

METHODS & VARIABLES: Participants were randomly assigned to receive an eight-week intervention in either a group dynamics–based exercise or a personal training setting. Both intervention arms received supervised exercise twice per week, as well as PA education and discussion sessions.

RESULTS: Significant increases were noted in both intervention arms for vigorous PA, chest press, and leg press. Increases in overall QOL and total PA were significant only in the group dynamics–based exercise intervention arm.

IMPLICATIONS FOR NURSING: The group dynamics–based exercise intervention produced similar improvements in PA and physical fitness compared to the personal training intervention, and it may have facilitated greater improvements in overall QOL.

KEYWORDS group dynamics; physical activity; fitness; quality of life; breast cancer; personal training
ONF, 46(2), 185–197.
DOI 10.1188/19.ONF.185-197

Physical activity (PA) can mitigate the negative effects of breast cancer treatment on fatigue (Brown et al., 2011; Meneses-Echávez, González-Jiménez, & Ramírez-Vélez, 2015), physical function (Fong et al., 2012; McNeely et al., 2006), and quality of life (QOL) (Ferrer, Huedo-Medina, Johnson, Ryan, & Pescatello, 2011; Mishra, Scherer, Snyder, Geigle, & Gotay, 2014), as well as reduce risk for cardiovascular disease, cancer recurrence, and mortality (Ammitzbøll et al., 2016; Ibrahim & Al-Homaidh, 2011). Despite these known benefits, breast cancer survivors' PA levels tend to decline and remain low following treatment (Smith & Chagpar, 2010). This may be attributable to cancer-specific barriers to engaging in PA, such as fatigue, pain, lymphedema, neuropathy, feelings of fear or uncertainty, lack of motivation, and lack of knowledge regarding appropriate exercise regimens (Blaney et al., 2010; Rogers, Courneya, Shah, Dunnington, & Hopkins-Price, 2007). Interventions that are structured and supervised and that include exercise types and intensities tailored to breast cancer survivors' needs can help patients overcome these barriers and may be most effective for increasing PA (Bluthmann, Basen-Engquist, et al., 2015) and improving physical function and QOL (Sweegers et al., 2018). However, to make these supervised, structured opportunities widely accessible to breast cancer survivors, it is important to explore exercise intervention delivery modalities that are effective, practical, and resource-conscious.

Based on an instructor-to-participant ratio, group-based exercise may be less expensive than individually supervised exercise, illustrating the potential of group-based exercise to be implementable and sustainable in real-world settings. However, it has been argued that not all group-based exercise interventions are created equal. Previous studies have found that those that