

# Quality of Life as a Predictor of Weight Loss in Obese, Early-Stage Breast Cancer Survivors

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**Purpose/Objectives:** To investigate whether quality of life (QOL) assessed before weight loss intervention predicts weight loss and, in turn, what the effect of weight loss is on QOL measures after 12 months in early-stage breast cancer survivors.

**Design:** A clinical trial of a weight loss intervention in breast cancer survivors.

**Setting:** Communitywide recruitment in Detroit, MI.

**Sample:** 39 breast cancer survivors (body mass index = 30–44 kg/m<sup>2</sup>), within three years of initial diagnosis and at least three months after chemotherapy or radiation therapy.

**Methods:** Participants were randomized to one of three weight loss methods or a control group. The Functional Assessment of Cancer Therapy–Anemia (FACT-An) QOL questionnaire was administered at baseline and after the intervention.

**Main Research Variables:** Six subscales of the FACT-An and weight change.

**Findings:** Modest but statistically significant associations were found for the physical and functional subscales of the FACT-An with weight loss for 39 subjects who completed 12 months of the study. Those reporting relatively impaired physical or functional QOL at baseline lost more weight, which accounted for 8%–9% of the weight loss variance beyond that resulting from the diet arm assignment. At 12 months, greater weight loss was associated with significant improvements in overall FACT-An score and in the physical, functional, fatigue, and anemia subscales ( $p < 0.05$ ).

**Conclusions:** Relatively low physical function at baseline was not a barrier to weight loss; indeed, it may have been a motivating factor in adherence to the weight loss intervention. Weight loss was associated with improvement in several QOL subscale measures in breast cancer survivors, but the emotional and social subscales were not affected.

**Implications for Nursing:** Counseling for weight loss that includes recommendations for exercise should not be withheld for patients with relatively low physical functioning.

## Key Points . . .

- ▶ The quality of life in obese breast cancer survivors after 12 months in a weight loss study was influenced by baseline quality of life and the percentage of weight change.
- ▶ The physical and functional quality-of-life domains, anemia, fatigue, and overall quality of life were significantly improved by weight loss.
- ▶ Subjects with low baseline physical and functional quality of life lost more weight than subjects with higher baseline scores.
- ▶ Physical and functional concerns should not deter recommendations for weight loss through exercise and diet.

Strawbridge, & Kaplan, 2003). Many studies suggest that QOL diminishes as the degree of obesity increases (Kolotkin et al., 2001; McInnes & Knopf, 2001).

## Obesity and Breast Cancer

Obesity in cancer survivors may be especially worrisome. The diagnosis of cancer alone adversely affects health, and cancer survivors bear a disproportionate burden of illness and lost productivity that extends many years after diagnosis (Yabroff, Lawrence, Clauser, Davis, & Brown, 2004). Unfortunately, preexisting obesity and overweight in patients with breast cancer may be exacerbated by further weight gain or increases in body fat during and after treatment (Demark-Wahnefried et

**W**eight gain leading to overweight and obesity is becoming a worldwide epidemic that has increased dramatically in prevalence during recent years (National Center for Health Statistics, 2002). As a result, major adverse implications exist for health, both in the physical and mental domains (National Heart, Lung, and Blood Institute Obesity Education Initiative, 1998; Pi-Sunyer, 2002). For example, decreased quality of life (QOL) and increased rates of depression and psychological distress have been found to be associated with obesity (Fine et al., 1999; Fontaine, Redden, Wang, Westfall, & Allison, 2003; Kolotkin, Meter, & Williams, 2001; Marchesini et al., 2003; Roberts, Deleger,

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