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## Anxiety and Quality of Life of Women Who Receive Radiation or Chemotherapy for Breast Cancer

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**Purpose/Objectives:** To examine quality of life (QOL) and anxiety in a sample of women receiving radiation or chemotherapy for breast cancer.

**Design:** Longitudinal, descriptive.

**Setting:** A cancer center in the southeastern United States.

**Sample:** 48 women participated; 17 received radiation and 31 received chemotherapy.

**Methods:** The Ferrans and Powers Quality of Life Index (QLI) and Spielberger's State-Trait Anxiety Inventory (STAI) were administered. The QLI was administered at the start of treatment and one year later. The STAI was administered at the start of treatment. The state portion of the STAI also was administered 4 weeks and 12 weeks after the start of treatment.

**Main Research Variables:** QOL and anxiety.

**Findings:** Total QOL improved significantly over time for the entire sample, as did scores on the health/functioning, psychological/spiritual, and family subscales of the QLI. No significant differences existed for total QOL or any subscales by treatment. Trait anxiety was significantly higher for women receiving chemotherapy, and state anxiety was significantly higher at all three measurement times for the women. State anxiety did not decrease significantly over the course of the treatment for either group. Trait anxiety and state anxiety at the start of treatment were significantly negatively correlated with total QLI score and the psychological/spiritual subscale. State anxiety at the start of treatment also was significantly negatively correlated with total QOL and the health/functioning and psychological/spiritual QLI subscales both at the start of treatment and one year later.

**Conclusions:** QOL improves over time for women who have received radiation or chemotherapy. Women receiving chemotherapy have higher anxiety scores, and higher anxiety at the start of treatment is associated with decreased QOL at the start of treatment and post-diagnosis.

**Implications for Nursing:** Nursing interventions to reduce anxiety at the start of treatment, especially for chemotherapy recipients, are indicated. Research also should target methods to reduce anxiety at the start of treatment.

### Key Points . . .

- ▶ Quality of life (QOL) for women undergoing breast cancer treatment improves from the start of treatment to one year later.
- ▶ Women receiving chemotherapy may experience more anxiety than women receiving radiation therapy for breast cancer.
- ▶ Anxiety has a negative effect on QOL that persists over time.

directed toward understanding the impact of aggressive therapy on quality of life (QOL) during the survival period (King & Hinds, 1998).

QOL is a complex, multidimensional concept that is both unique and personal. In regard to illness, QOL is affected by an individual's perceptions and responses to diagnosis. This study used Ferrans' (1990) conceptualization of QOL that states that "a person's sense of well-being stems from satisfaction or dissatisfaction with the areas of life that are most important to him/her" (p. 15). Ferrans described QOL as consisting of four domains: health/functioning, socioeconomic, psychological/spiritual, and family. Variables associated with QOL include physical symptoms and type of treatment. Physical symptoms during breast cancer treatment clearly influence QOL (Ferrell, Grant, Funk, Otis-Green, & Garcia, 1997, 1998), and the number and the severity of side effects reported have been correlated negatively with appraisal of QOL (Longman, Braden, & Mishel, 1999). In a longitudinal study of 53 women who were receiving adjuvant breast cancer

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Survival time for patients with breast cancer has been lengthened by new and more aggressive treatments. However, although aggressive therapy may result in a longer life, patients may experience more serious side effects than from traditional therapy and suffer from sequelae that last beyond the treatment period. A growing consensus, therefore, exists among clinicians and researchers that attention must be