

This material is protected by U.S. copyright law. To purchase quantity reprints, e-mail [reprints@ons.org](mailto:reprints@ons.org). For permission to reproduce multiple copies, e-mail [pubpermissions@ons.org](mailto:pubpermissions@ons.org).

# Relationship Between Severity of Symptoms and Quality of Life in Patients With Breast Cancer Receiving Adjuvant Hormonal Therapy

Leah Ochayon, RN, MSc, Revital Zelker, RN, MN, Luna Kaduri, MD, and Ilana Kadmon, RN, PhD

**A**s in many Western countries, breast cancer is the most prevalent cancer among women in Israel. About 4,000 Israeli women are diagnosed yearly with breast cancer. Ninety percent of these cancers could be cured if the disease was detected and treated in the early stages (Israel Cancer Association, 2007).

Hormonal therapy is part of the treatment protocol for patients with breast cancer with hormone-sensitive tumors (Woods, Muss, Solin, & Olopade, 2005). Literature on the topic has noted that the side effects of hormonal treatment may negatively affect patients' quality of life (QOL), but the medical community tends to underestimate the effect of hormone-related symptoms compared to patients' perceptions (Leonard, Lee, & Harrison, 1996; Vigler & Inbar, 2002). The literature describes the symptoms of the patients but does not make a connection between the possible effect of the symptoms and QOL, but rather measures the overall QOL of these women (Fallowfield et al., 2006; Land et al., 2006). The purpose of this study was to identify endocrine therapy-related symptoms and severity, patients' QOL scores, and the possible relationship between the type of symptom and QOL scores in specific categories.

## Hormonal Treatment for Breast Cancer

In 1895, George Beatson, MD, a Scottish surgeon, mentioned that after removal of the ovaries (oophorectomy) in premenopausal women with advanced breast cancer, estrogen levels declined, which resulted in an improvement in patients' conditions and survival rates (Fallowfield, 2004; Gabbai & Korem, 2002). With this discovery came the knowledge that the estrogen hormone stimulates breast cancer development and can accelerate the progress of the disease. In the 1950s and 1960s,

**Purpose/Objectives:** To describe symptoms and quality of life (QOL) of patients with breast cancer receiving adjuvant hormonal therapy and to examine possible relationships between the two measurements.

**Design:** Descriptive, correlational study.

**Setting:** An oncology clinic within a tertiary medical center in Israel.

**Sample:** Convenience sample of 132 patients diagnosed with primary breast cancer receiving hormonal therapy.

**Methods:** Data collection was conducted through the self-administered Functional Assessment of Cancer Therapy endocrine subscale and a sociodemographic and medical information questionnaire.

**Main Research Variables:** QOL and symptoms of hormonal therapy.

**Findings:** Ten symptoms were categorized by more than 20% of the participants as "very much" or "quite a bit." The mean QOL score for the participants was higher than that for a healthy population, although a correlation was found between fewer symptoms and higher QOL. Mood swings and irritability were the symptoms most strongly associated with a decrease in QOL. Patients who exercised had higher QOL scores.

**Conclusions:** Adjuvant hormonal therapy did not affect the QOL of a majority of patients with primary breast cancer. A reduced number of symptoms indicated a higher QOL. Mood swings and irritability have a negative impact on QOL.

**Implications for Nursing:** A need exists to design a program to follow up on hormonal symptoms and the QOL of patients receiving hormonal therapy and to encourage patients to engage in regular exercise.

excision or ablation of the ovaries by irradiation was the accepted treatment offered to women with metastatic breast cancer. After the 1960s, this treatment was replaced with pharmacologic therapy (Fallowfield, 2004; Jonat et al., 2002). About 60%–70% of malignant breast