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# The Symptom Cluster of Fatigue, Pain, Anxiety, and Depression and the Effect on the Quality of Life of Women Receiving Treatment for Breast Cancer: A Multicenter Study

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**V**arious symptoms are frequently reported by patients with cancer during or after treatment. Fatigue, pain, anxiety, and depression are among the most common (National Institutes of Health, 2004). Most previous literature has examined a single symptom and its effect on patients' functional status and quality of life (QOL). However, patients often experience more than one symptom. The concurrence of related symptoms may have adverse effects on patient outcomes. This study examines the prevalence of fatigue, pain, anxiety, and depression, the relationships among these symptoms, and their effects as well as the effects of other sociodemographic and clinical factors on the QOL of patients with breast cancer undergoing treatment.

## Literature Review

### Incidence and Survival Rate of Patients With Breast Cancer

Breast cancer is one of the most common cancers worldwide (Breast Health Global Initiative, n.d.). In Hong Kong, breast cancer ranks as the most common cancer and the third leading cause of cancer death in the female population (Hospital Authority: Hong Kong Cancer Registry, 2006b). The incidence rates have increased steadily from 47.7 per 100,000 in 1996 to 72 per 100,000 in 2006 (Hospital Authority: Hong Kong Cancer Registry, 2006a).

The advanced development of cancer treatment increases the survival rate and prolongs lifespan. Overall, the five-year survival rate ranges from 100% (among

**Purpose/Objectives:** To examine the symptom cluster of fatigue, pain, anxiety, and depression and its effect on the quality of life (QOL) of women receiving chemotherapy or radiotherapy for breast cancer.

**Design:** Descriptive.

**Setting:** Oncology outpatient sections of four public hospitals in Hong Kong.

**Sample:** 215 ethnic Chinese women who were midway through treatment for breast cancer.

**Methods:** Chinese versions of the Brief Fatigue Inventory, Hospital Anxiety and Depression Scale, Brief Pain Inventory, Functional Assessment of Chronic Illness Therapy for Breast Cancer, and Medical Outcomes Study Social Support Survey were used. Spearman rho correlation and structural equation modeling were used to examine the relationships among the study variables.

**Main Research Variables:** Breast cancer, fatigue, pain, anxiety, depression, and QOL.

**Findings:** Most participants reported mild-to-moderate levels of fatigue and pain. Twenty-one percent and 36% of patients might have had an anxiety or depression disorder, respectively. Significant correlations among the four symptoms supported the existence of the symptom cluster. The participants receiving chemotherapy had inadequate social support, experienced higher levels of symptoms, and were more likely to have a poorer QOL.

**Conclusions:** The findings supported the existence of the symptom cluster that had detrimental effects on QOL.

**Implications for Nursing:** This study shed light on a contemporary approach of grouping several related symptoms together. The findings enhance nurses' clinical sensitivity when identifying patients in high-risk groups and provide useful information for designing and prioritizing symptom-management strategies to meet patients' needs.