

# Fatigue, Psychological Distress, Coping Resources, and Functional Status During Radiotherapy for Uterine Cancer

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**Purpose/Objectives:** To evaluate how patients diagnosed with uterine cancer experience fatigue, psychological distress, coping resources, and functional status before, during, and after treatment with radiation therapy and to study whether significant correlations exist among these variables.

**Design:** Longitudinal, descriptive, and correlational.

**Setting:** The Department of Oncology, Sahlgrenska University Hospital, Gothenburg, Sweden.

**Sample:** 60 women diagnosed with uterine cancer who were receiving curative external radiation therapy. Typical participants were 64 years old, married, and on sick leave or retired from work.

**Methods:** Data were collected through self-report instruments. Demographic and clinical data were extracted from the patients' records.

**Main Research Variables:** Cancer-related fatigue, psychological distress, coping resources, and functional status.

**Findings:** Patients' fatigue scores increased significantly during and after completion of radiotherapy. The participants reported normal levels of anxiety and depression, and their coping resources changed over time. After completing therapy, all dimensions of function had decreased; for social function, the decrease was significant. The correlation over time was significant among fatigue and physical function, role function, and cognitive function. The variation of the change in fatigue after therapy was completed was explained only by the level of fatigue experienced at baseline.

**Conclusions:** Fatigue is a symptom that increases in connection with radiotherapy. Functional status is influenced by the variation in fatigue levels. Fatigue level before treatment may be an important variable when trying to find a risk factor for the development of fatigue over the course of treatment.

**Implications for Nursing:** Nurses must inform patients receiving radiotherapy about the expected changes in fatigue and functional status. Pretreatment screening for fatigue is needed to identify patients at risk for developing fatigue.

## Key Points . . .

- ▶ Cancer-related fatigue is a symptom that may increase during treatment with radiation therapy.
- ▶ Fatigue level before treatment may be an important variable when trying to determine the risk of developing fatigue over the course of treatment.
- ▶ Pretreatment screening for fatigue and other variables of interest is important to give patients preparatory information about fatigue and to determine whether interventions to reduce fatigue should be used.

et al., 1994). Fatigue is symptomatic of a variety of conditions in patients with cancer (Curt, 2000) and has been explained by patients as a major obstacle to normal functioning and good quality of life (Vogelzang et al., 1997).

Despite significantly more literature on fatigue in recent years, cancer-related fatigue (CRF) remains understudied, and several important questions still are unanswered (Winningham & Barton-Burke, 2000). A lack of knowledge exists regarding the risk factors for developing fatigue in patients with uterine cancer who receive radiation therapy. The purpose of the current study was to describe how patients diagnosed with uterine cancer experience fatigue, psychological distress, coping resources, and functional status before, during, and after treatment with radiation therapy. Furthermore, the study aimed to describe the impact of selected variables on the degree of fatigue. The results of this study can provide new knowledge about the experience of CRF, the relationship between CRF and selected variables, and outcomes in a population of women with uterine cancer, in whom a limited number of studies have been performed.

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Patients with cancer may experience one or more symptoms and distress associated with the symptoms. Symptoms are multiplicative in nature and may act as catalysts for the occurrence of other symptoms. Consequences include effects on mood state, psychological status, functional status, quality of life, disease progression, and survival (Armstrong, 2003). The symptom experience is a dynamic process, involving the interaction of the perception of a symptom, evaluation of the meaning of a symptom, and response to a symptom (Dodd, Miaskowski, & Paul, 2001). Fatigue has been documented as one of the most frequently reported symptoms in patients with cancer (Cella, 1997; Jacobsen et al., 1999; Morrow, Andrews, Hickok, Roscoe, & Matteson, 2002; Stone, Richards, A'Hern, & Hardy, 2000; Winningham