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# The Effectiveness of Nursing Education as an Intervention to Decrease Fatigue in Turkish Patients Receiving Chemotherapy

Öznur Usta Yeşilbalkan, RN, PhD, Ayfer Karadakovan, RN, PhD, and Erdem Göker, MD

**F**atigue is a common symptom in patients with cancer (Piper et al., 1998); 90% experience fatigue at some point during the course of their illness and it has been noted to worsen when cancer treatment begins (Barnes & Bruera, 2002; Escalante et al., 2001). Diminished performance status and the presence of disease-related symptoms often cause fatigue before treatment with chemotherapy (Grant, Golant, Rivera, Dean, & Benjamin, 2000), but fatigue also can be worsened by pain, anemia, sleep disturbance, and nutritional, mood, and activity issues (National Comprehensive Cancer Network [NCCN], 2008). Satisfactory management of the issues may help reduce patients' subjective experience of fatigue that might otherwise have a negative effect on their desire to continue therapy (Curt et al., 2000), self-care skills (Curt et al.; Stone, Richards, & Hardy, 1998), or quality of life (QOL) (Curt et al.; de Jong, Candel, Schouten, Abu-Saad, & Courtens, 2005; Godino, Jodar, Duran, Martinez, & Schiaffino, 2006; Grant et al.; Stone et al.).

Tavio, Milan, and Tirelli (2002) argued that, although many oncologists regard pain as more clinically relevant than fatigue, the latter symptom may have a greater effect on patients' lives and restrict their activities of daily living to a greater extent than pain. Curt (2000) found that fatigue was the most prevalent symptom reported by patients receiving chemotherapy with or without radiation. Fatigue was reported to be more prevalent than other disease- or treatment-related side effects such as nausea, depression, and pain, with 76% of patients experiencing fatigue at least once a month. However, despite the fact that fatigue is an important and relatively common issue in patients with cancer, it still is underestimated by healthcare providers (van Weert et al., 2006). Reasons include oncologists' preoccupation with the assessment and management of cancer pain (Tavio et al.), a lack of scientific literature on fatigue

**Purpose/Objectives:** To determine whether a nurse-led educational intervention decreased the perception of fatigue in patients diagnosed with gastrointestinal (GI) cancers (colon, stomach, liver, rectum, pancreas) who were receiving chemotherapy for the first time.

**Design:** Quasi-experimental, descriptive.

**Setting:** Outpatient department in a large university hospital in Izmir, Turkey.

**Sample:** 35 patients receiving chemotherapy for GI cancers.

**Methods:** Baseline demographic data were collected using a personal information form developed by the researchers. Fatigue and quality of life (QOL) were then assessed using the Brief Fatigue Inventory, the Piper Fatigue Scale, and the European Organisation for Research and Treatment of Cancer Quality of Life (EORTC QLQ C-30) scale before their first cycle of chemotherapy, on the 10th day after (T1), and again 10 days after the second cycle of chemotherapy (T2). Patients received an individual educational intervention at baseline, T1, and T2 based on the results of their fatigue assessment in accordance with the National Comprehensive Cancer Network (NCCN) cancer-related fatigue guidelines. Patients were given an educational booklet on fatigue prior to treatment and symptom specific booklets as required at T1 and T2.

**Main Research Variables:** Subjective reports of patients' fatigue and QOL.

**Findings:** Patients' mean fatigue scores showed a statistically significant decrease and their EORTC QLQ C-30 scores were better at T1 and T2 compared with baseline.

**Conclusions:** Nurse-led educational interventions have the potential to reduce fatigue in patients with GI cancer receiving chemotherapy for the first time.

**Implications for Nursing:** The administration of chemotherapy should be preceded by a formal fatigue assessment and the provision of individually tailored educational interventions to reduce the severity of fatigue and improve QOL.