The Relationship of Sleep Disturbance and Symptom Severity, Symptom Interference, and Hospitalization Among Israeli Inpatients With Cancer

Liza Monas, BA, RN, Suzanne Csorba, BSc, RN, Michal Kovalyo, RN, MN, Ruthie Zeligman, RN, BSN, Yossi Freier Dror, MA, and Catherine F. Musgrave, RN, DNSc

Sleep disturbance is a common issue among patients with cancer (Berger et al., 2005; Savard & Morin, 2001; Sela, Watanabe, & Nekolaichuk, 2005) and has been reported as one of the most frequent symptoms among patients with breast (Byar, Berger, Bakken, & Cetak, 2006; Davidson, MacLean, Brundage, & Schulze, 2002) or lung cancer (Davidson et al., 2002; Wang, Tsai, Chen, Lin, & Lin, 2008), as well as patients with cancer in general (Ivanova et al., 2005; Yi, Wang, & Ping-Ping, 2008). In addition, insomnia has been reported as the most prominent symptom of hospitalized patients with cancer (Chen & Chang, 2004). Furlani and Ceolim's (2006) study showed that hospitalized, clinically stable patients with gynecologic or breast cancer experienced better sleep quality during hospitalization. Patients whose situation deteriorated did not sleep as well. Other studies indicated that patients undergoing stem cell transplantation (Anderson et al., 2007; Rischer, Scherwath, Zander, Koch, & Schulz-Kindermann, 2009) and those on a neurosurgical unit (Sendir, Acaroglu, Kaya, Erol, & Akkaya, 2007; Ugras & Oztekin, 2007) experienced more sleeping issues during the period of treatment with improvements occurring toward the end of hospitalization. No in-depth published studies were found that examined the nature of Israeli patients' sleep disturbance in an inpatient setting, nor has their sleep disturbance at home been compared with their sleep disturbance in the hospital.

Research studies have demonstrated that sleep disturbance occurs in a cluster with other symptoms (Given, Given, Sikorskii, & Hadar, 2007). Studies that have examined the symptom cluster of fatigue, depression, pain, and sleep disturbance featured sleep disturbance scores as the highest in two of the four patient subgroups, and second to the highest in the other two

Purpose/Objectives: To examine the relationship of sleep disturbance and symptom severity, symptom interference, and hospitalization among inpatients with cancer.

Design: A descriptive, correlational, comparative design.

Setting: The oncology inpatient unit of a teaching hospital.

Sample: A convenience sample of 82 hospitalized patients.

Methods: Patients completed the Pittsburgh Sleep Quality Index (PSQI)–Home questionnaire, the MD Anderson Symptom Inventory (MDASI), and a demographic data information instrument within 72 hours of admission. Patients hospitalized for 10 days or more completed the PSQI–Hospitalization questionnaire and the MDASI.

Main Research Variables: Sleep disturbance, symptom severity, symptom interference, and hospitalization.

Findings: Although sleep disturbance scores were high at home and during hospitalization, the use of sleeping medication received the lowest score in the PSQI. Patients who were hospitalized for 10 days or more had significantly higher global PSQI scores at home than after being hospitalized for 10 days or more. A significant relationship was noted between global PSQI scores at home and symptom severity total mean scores, with the symptoms of numbness and tingling demonstrating the greatest correlation with sleep disturbance. A tendency existed for a significant relationship between global PSQI scores at hospital and symptom severity total mean scores. The symptom with the greatest correlation with global PSQI scores at hospital was sadness, followed closely by remembering. The interference items with the greatest correlation to global PSQI scores at hospital were patient's enjoyment of life, mood, and relations with others.

Conclusions: Sleep disturbance was less of a problem for patients during their hospitalization than at home. Unlike other studies, numbness was found to be the symptom most closely correlated to sleep disturbance.

Implications for Nursing: Additional investigation should be conducted to identify the factors that influence sleep disturbances in patients with cancer at home and the relationship between sleep disturbance and numbness and tingling.