

The Effects of Mastery on Pain and Fatigue Resolution

Elizabeth A. Byma, MSN, RN, Barbara A. Given, PhD, RN, FAAN,
Charles W. Given, PhD, and Mei You, MS

The psychological resource of mastery is the personal control felt over occurrences that are perceived to have an important effect on one's life (Pearlin & Pioli, 2003). Mastery can be global (i.e., generalized to multiple areas of life) or domain specific (Pearlin & Pioli), such as cancer-related (Kurtz, Kurtz, Given, & Given, 2008) or caregiver-related mastery (Sherwood et al., 2007). Mastery level may change over time in response to life events (Avison & Cairney, 2003; Cairney & Krause, 2008). Personal control is the belief that an individual has the ability and resources to control or influence outcomes (Carver et al., 2000; Seeman, 1999). Personal control affects patients' healthcare decisions by increasing confidence in decision making and modifying the prioritization of outcomes (Carver et al.; Volker, Kahn, & Penticuff, 2004a, 2004b).

Outcomes from symptom management interventions may be influenced by the patient's environment, their health and illness, and personal characteristics, such as psychological attributes (Dodd et al., 2001). Although psychological issues (e.g., depression, anxiety) are assessed frequently in symptom-related research, psychological resources (personality characteristics influencing patient behaviors that are used to confront and address stressors) (Pearlin & Schooler, 1978; Pudrovska, Schie-man, Pearlin, & Nguyen, 2005) are considered less often. Cancer-related disease processes, symptoms, and side effects of treatments can act as stressors; therefore, mastery may have an effect on patients' behavioral responses to stressors, such as cancer-related symptoms.

McLeod (2003) stated that "mastery's presumed link to choice, decision, and action has been one of its most compelling contributions to literature on stress" (p. 176). Mastery may influence the use of interventions, including new models, if another is ineffective (Arnold et al., 2006; Ross & Sastry, 1999). Therefore, mastery may play an important role in symptom management outcomes. As a result, the current study sought to examine the effects of mastery on the resolution of pain and fatigue in individuals with cancer who received a six-contact, eight-week cognitive behavioral intervention after adjusting for age, sex, education, income, race, depression, and comorbidities.

Purpose/Objectives: To determine whether mastery, the personal control felt over occurrences perceived to have an important effect on one's life, influences the resolution of pain and fatigue severity.

Design: Secondary data analysis of two randomized clinical trials.

Setting: Accrual from two comprehensive cancer centers, one community oncology program, and six hospital-affiliated ambulatory oncology centers.

Sample: 330 patients with solid tumors who were undergoing chemotherapy and receiving a nurse-presented, six-contact, eight-week intervention for symptom management.

Methods: Analysis included baseline and interventional data. Logistic regression and survival analysis methods were used to explain relationships between mastery and time to resolution and resolution of pain and fatigue severity.

Main Research Variables: Mastery, pain and fatigue severity resolution, and time to resolution.

Findings: No significant differences in mastery were found among key socioeconomic and cancer-related variables. Mastery was a significant predictor of pain resolution status but did not significantly decrease time to resolution. Mastery did not have a significant effect on fatigue resolution status or time to fatigue resolution after adjusting for other covariates.

Conclusions: Mastery was symptom specific, predicting pain resolution but not fatigue. Cancer may have an equalizing effect on mastery early in diagnosis and treatment.

Implications for Nursing: Nurses should develop interventions that increase mastery in patients with cancer, which may lead to improved resolution of pain. Additional research is needed to explore how mastery may affect resolution of pain severity and other symptoms experienced by people with cancer.

Literature Review

An extensive literature search revealed one study that examined relationships between mastery and pain and fatigue severity: Kurtz et al. (2008) noted that levels of mastery predicted lower pain and fatigue severity scores after adjusting for the effects of other covariates in patients with cancer. However, Kurtz et al. (2008) did not examine the resolution of pain or fatigue severity.