

Quality of Life

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Quality of life (QOL) has gained prominence as an important outcome of cancer treatment, encompassing those things that give worth, meaning, purpose, and satisfaction to life. QOL can include physical, psychological, social, spiritual, and functional well being as well as symptoms that impact one's ability to function and gain satisfaction in living. The nursing research program continues its work on symptoms and their impact on a patient's QOL. Our work during the past year has focused on cancer-related fatigue and insomnia, as well as strategies to manage them. Because there is a great deal to be gained from understanding patients' experiences, we explore these phenomena using both quantitative and qualitative methodologies.

As we build our knowledge base about fatigue and other symptoms, we are continually evaluating new information and skills to help our patients cope more effectively with cancer. There is a body of research suggesting that information about unfamiliar health care experiences—symptoms, genetic tests, or procedures—can dramatically improve an individual's coping efforts and favorably impact QOL. In addition, we are seeking more efficient and time-conserving ways to teach patients given the emphasis on economy in the health care environment.



Energy and sleep enhancement for cancer patients undergoing chemotherapy. Barsevick, Newhall, Stewart, Tinari, in collaboration with Beck,^a Dudley,^a Whitmer^b

Fatigue and sleep disturbances are common problems for individuals treated with chemotherapy for cancer. In our studies, 89% of individuals undergoing chemotherapy reported fatigue and 71% reported sleep disturbance. These problems can impair an individual's ability to function in their usual activities and diminish quality of life during treatment. This ongoing study compares two interactive educational interventions focused on supporting individuals undergoing chemotherapy. In an experimental design, energy and sleep enhancement (EASE) for fatigue/sleep is compared with an alternative intervention focused on nutrition and a healthy diet. Oncology nurses conduct the interventions in three telephone sessions, providing information on coping skills. The aims of this research are to:

- 1) test the effectiveness of the combined fatigue/sleep intervention on the target symptoms of fatigue and sleep quality; 2) examine hypotheses about mediating processes for the target symptoms (fatigue and sleep); and, 3) examine the relationships among a group of symptoms (fatigue, sleep, pain, and depression) to generate hypotheses about clustering of these commonly reported symptoms during cancer treatment. The major outcomes of interest include the target symptoms of fatigue and sleep quality and the related symptoms of pain and depression; in addition, functional status, a dimension of quality of life is also evaluated.

Symptom clusters in cancer patients undergoing chemotherapy. Barsevick, Stewart, in collaboration with Engstrom,[§] Dudley^a

This ongoing pilot study systematically examines the relationships between and among a group of physical symptoms (fatigue, insomnia,

pain, and nausea/vomiting) typically experienced during cancer chemotherapy to determine whether or not they form clusters. The findings for clustering will be used to test alternative models of the impact of symptoms and/or symptom clusters on psychological and functional well being. The overall goal of this research is to generate hypotheses for future research about the characteristics and effects of symptom clusters during cancer treatment. Indicators of a symptom cluster include two or more symptoms with a common predictor (or cause), pattern, or effect on another symptom(s). A longitudinal descriptive design is used to examine symptoms and quality of life during one cycle of chemotherapy. Measures are taken at three data points: 1) prior to receiving chemotherapy; 2) day 3 of cycle; 3) last 3 days of cycle. Taking measures at these data points allows us to track the pattern of symptoms from baseline before treatment to a known symptom high point for fatigue, insomnia, and delayed nausea/vomiting to a known symptom low point (last day). The use of repeated measures enables us to examine symptom patterns, as well as temporal patterns by which symptoms could influence other symptoms over time. It also permits examination of relationships between symptoms and other quality of life dimensions at each data point as well as changes over time. Indicators of clustering will be examined independently. The number of indicators and the nature of the relationships described will be used to decide whether or not the symptoms under investigation form a cluster. Multiple regression techniques will be used to test whether functional well being is a mediator between individual symptoms (or symptom clusters) and psychological well being.

Assessment of recovery after transverse rectus myocutaneous abdominis (TRAM) flap breast surgery. Dell, Weaver, Barsevick, in collaboration with Kozempel[§]

TRAM flap reconstructions are performed after breast removal due to cancer for a better cosmetic result that could improve a woman's body image. However, the extensiveness of the surgery has been associated with increased post-surgical pain. Little is known about the location or duration of this pain. This ongoing

study is being undertaken to determine the frequency and intensity of pain in the lower back, abdominal incision, and other locations 4 and 8 weeks after surgery; to evaluate the use and helpfulness of specific supportive care instructions to decrease pain; to determine patient satisfaction with information provided by health care professionals; and to determine the time to resumption of usual preoperative activities. A case series design will be used to evaluate the experience of 25 women who have TRAM surgery. Patients are evaluated prior to surgery and two days, 4 weeks, and 8 weeks postoperatively. All of the procedures being evaluated are standard clinical practice in this clinical setting. The study findings will guide the development of informational materials and educational activities for women undergoing this procedure.

Symptom management for African-American breast cancer survivors. Barsevick, Tinari, Newhall, Stewart, in collaboration with Miller,[§] Bradley^d

Symptoms continue to be a problem for breast cancer survivors after the completion of treatment. Most research on survivors has been conducted on Caucasian women so little is known about the survival experience of Black women. Some research indicates that psychological barriers could keep survivors from taking advantage of available symptom management. This study is being conducted in collaboration with several breast cancer advocacy groups who provide services to women of color. It focuses on overcoming psychological barriers to symptom management in a cohort of Black breast cancer survivors. Intervention methods for overcoming barriers are being developed. These materials will be approved by a Research Advisory Board of breast cancer advocacy group representatives and tested in focus groups of African-American women. The study will examine the effect of a tailored verbal discussion with a nurse on symptom severity, maintenance of usual functioning, sexual functioning and work status. The mediating effect of encoding, self-efficacy, affect, values, and self-regulation barriers will also be evaluated. The cohort of study participants will be followed for one year to determine the long-term pattern and severity of symptoms and their relationship to usual functioning.

Publications

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The Pennsylvania State Nurses Association chose Joanne Hambleton as the recipient of its 2005 Administration-Management Award.