PAIN AND ANXIETY AND QUALITY OF LIFE IN BREAST CANCER SURVIVORS

Rebecca Guilkey, BA, BSN, RN, CCRN, Doctoral Student[1]; Susan Storey, MSN, RN, AOCNS, Doctoral Candidate[1]; Chia-Chun Tang, MSN, RN, OCN, Doctoral Student[1]; Adele Nielsen, BSN, Project Manager[1]; Diane Von Ah, PhD, RN, FAAN, Associate Professor[1]
[1]Indiana University School of Nursing

Indiana University – Purdue University at Indianapolis

BACKGROUND: Pain and anxiety are symptoms that frequently occur as co-related groups termed "clusters." While it is known that pain may be associated with decreased quality of life (QOL), less is understood about the effects of anxiety on breast cancer survivors (BCS).

PURPOSE: The purpose of this study was to: 1) determine levels of pain and anxiety in breast cancer survivors and 2) examine the relationship between anxiety and pain on quality of life in breast cancer survivors (BCS) controlling for age and time post-treatment.

THEORETICAL FRAMEWORK: Ferrell's Quality of Life Model guided this study.

METHODS: A cross-sectional, descriptive design was used. BCS enrolled in a longitudinal cognitive behavioral study completed self-report questionnaires including the Medical Outcome Scale-Short Form, Pain Subscale, Spielberger State-Trait Anxiety Instrument (STAI) State Sub-scale to measure anxiety, and Ferrell's QOL Instrument which measures Physical, Psychological, Social and Spiritual Well-being (higher scores indicating higher quality of life). Covariates of age and time post-treatment were controlled for. All data were collected at a baseline assessment before randomization in the cognitive intervention study. Data were evaluated using descriptive statistics and general linear regression.

RESULTS: 88 female BCS averaging 57 years old (range 40-74; SD=8.54), primarily Caucasian (88.6%), college-educated (88%), approximately 5.3 (SD=4.0) years post-treatment participated. Cancer-related pain (4 lymphedema, 4 neuropathy) was specified by 8 participants. BCS reported low-moderate pain ($\overline{x}$ = 66.0114; sd = 22.348) and moderate anxiety ($\overline{x}$ = 35.0227; sd= 8.7749). Clinically significant levels of anxiety (≥ 39 on the STAI-S where higher scores indicated higher anxiety) were reported in 24% of BCS. Age, anxiety, and pain significantly accounted for 45% of the total variance on QOL in the regression model (R = 0.45, F = 18.61; p = <0.000), controlling for age and time post-treatment.

CONCLUSIONS: This study provides support for the fact that both pain and anxiety are negatively associated with QOL. Anxiety is a significant long-term symptom for a sub-set of BCS which negatively impacts all dimensions of BCS quality of life. Findings indicate the need for comprehensive assessment of symptoms of anxiety in long-term BCS and the development of evidenced-based interventions to alleviate anxiety and improve QOL.

Keywords: Breast cancer, pain, anxiety, quality of life