

Predictors of Health-related Quality of Life at One Month after Head and Neck Cancer Surgery

Hsiao-Lan Wang, PhD, RN, CMSRN, HFS¹

Alan Mikesky, PhD, FACSM²

Juanita F Keck, DNS, RN¹

Karen Bunnell, MSN, NP-C^{3,4}

Janice Buelow, PhD, RN¹

Susan M Rawl, PhD, RN, FAAN¹

¹Indiana University School of Nursing; ²Indiana University School of Physical Education & Tourism Management; ³Head and Neck Surgery Program, St. Vincent Hospital; ⁴Center for Ears, Nose, Throat, and Allergy

Indiana University – Purdue University Indianapolis

Abstract

Significance: Head and neck cancer (HNC) survivors frequently experience treatment-related complications that may cause decrements in health-related quality of life (HRQOL). Before interventions can be designed to enhance HRQOL in the early postoperative period, descriptive research is needed to determine predictors of HRQOL in this understudied population.

Problem and Purpose: The proposed study identified predictors of global HRQOL, and physical, functional, emotional, and social well-being at one month after HNC surgery. Variables examined as potential predictors included shoulder pain, shoulder function, and functional impairments (disfigurement, and eating, speech, and breathing impairments).

Theoretical Framework: The University of California, San Francisco School of Nursing Symptom Management Model was modified and used to guide the study.

Methods and Analysis: In this exploratory, cross-sectional study, we examined a convenience sample of 29 patients who had undergone HNC surgery with curative intent one month previously. Global HRQOL was measured using the Functional Assessment of Chronic Illness Therapy (FACIT) General Scale, including four well-being subscales. Shoulder pain intensity was measured using the Brief Pain Inventory, shoulder pain distress was measured using a 0-10 numerical rating scale, and functional impairment was measured using the FACIT Head and Neck Subscale. Shoulder function was assessed using a goniometer. Pearson correlations were initially applied to determine correlates ($p < 0.20$) that should be entered in subsequent stepwise regression models.

Findings and Implications: The only significant predictor of global HRQOL was eating impairment ($B = -0.20, p = 0.02$). Predictors of physical well-being were shoulder pain distress ($B = -0.10, p = 0.02$) and eating impairment ($B = -0.27, p = 0.03$). Predictors of functional well-being were speech impairment ($B = -0.43, p < 0.01$) and disfigurement ($B = -0.20, p = 0.02$). No significant predictors were found for emotional and social well-being.

The findings suggested that patients' physical and functional well-being can be influenced by eating impairment, shoulder pain distress, speech impairment, or disfigurement at one month after HNC surgery. Nurses need to monitor nutrition intake, provide proper pain management, and collaborate with speech and physical therapists to promote early rehabilitation. A longitudinal study with a larger sample size is warranted to describe needs for multidisciplinary care to improve HQOL after HNC surgery.