

Quality of Life and Related Factors in Patients With Newly Diagnosed Advanced Lung Cancer: A Longitudinal Study

Yu-Chien Liao, PhD, RN, Shiow-Ching Shun, PhD, RN, Wei-Yu Liao, MD, Chong-Jen Yu, PhD, MD, Pan-Chyr Yang, PhD, MD, and Yeur-Hur Lai, PhD, RN

Lung cancer is among the leading causes of cancer death worldwide (World Health Organization, 2014), with the majority of patients diagnosed with advanced non-small cell lung cancer (NSCLC) (National Comprehensive Cancer Network [NCCN], 2014). In Taiwan, about 90% of patients with lung cancer are diagnosed with NSCLC, and about 72% of those patients are at stage III or IV when diagnosed (Taiwan Cancer Registry, 2010). For patients with advanced lung cancer, multimodality treatment is the only way to prolong patient survival (NCCN, 2014). However, the five-year survival rate is still only 14%–17% for patients with lung cancer in the United States (Siegel, Ma, Zou, & Jemal, 2014). Poor prognosis and subsequent treatment-related side effects may cause overwhelming stress, which ultimately threaten quality of life (QOL) during the disease trajectory (Sprangers, Tempelaar, van den Heuvel, & de Haes, 2002).

QOL has been identified as one of the most crucial indicators of cancer prognosis and factors related to the survival duration of patients with lung cancer (Gralla, 2004; Li et al., 2012). Patients with lung cancer have been observed to experience the worst QOL levels compared to patients with other types of cancer (Baker, Denniston, Haffer, & Liberatos, 2009). However, compared to the amount of information on the QOL of patients diagnosed with breast cancer or other major cancers, few studies have examined factors related to QOL changes among patients with advanced-stage lung cancer.

The purposes of the current study were to (a) examine the changes in QOL (global and five functional dimensions: physical, role, emotional, cognitive, and social), symptoms, and self-efficacy for coping with cancer; and (b) identify the factors related to the changes in the six QOL dimensions in patients with advanced lung cancer during the first three months following diagnosis.

Purpose/Objectives: To examine the changes in quality of life (QOL), symptoms, self-efficacy for coping with cancer, and factors related to those changes in patients with newly diagnosed advanced lung cancer.

Design: Longitudinal and correlational.

Setting: Oncology inpatient wards and outpatient departments of a medical center in northern Taiwan.

Sample: 101 patients newly diagnosed with stage IIIB or IV lung cancer.

Methods: Questionnaires were used to assess patients' QOL, symptoms, and self-efficacy before treatment and at one and three months following treatment. Factors related to the changes in global QOL and five functional dimensions were analyzed using six generalized estimating equation models.

Main Research Variables: QOL, symptoms, and self-efficacy for coping with cancer.

Findings: Patients reported moderate levels of global QOL, symptom severity, and self-efficacy for coping with cancer. They also reported high physical and cognitive functions, but relatively low role and social functions. Factors were significantly related to the most functional dimensions, including self-efficacy, fatigue, pain, sleep difficulties, and demographic- and disease-related factors. Self-efficacy was the most robust factor for predicting QOL.

Conclusions: Patients with advanced lung cancer experience a compromised global QOL and relatively low social and role functioning during the first three months following cancer diagnosis. Levels of self-efficacy and symptoms significantly affected changes in QOL and functioning.

Implications for Nursing: Applying a systematic assessment of changes in QOL and developing comprehensive interventions with self-efficacy training and symptom management are strongly recommended for clinical care to improve the QOL of patients with advanced lung cancer.

Key Words: lung cancer; quality of life; self-efficacy; symptoms
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Conceptual Framework

The Transactional Model of Stress and Coping Theory (Lazarus & Folkman, 1984) was used as the conceptual