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Measuring Stigma in People With Lung Cancer: Psychometric Testing of the Cataldo Lung Cancer Stigma Scale

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Purpose/Objectives: To develop an instrument to measure the stigma perceived by people with lung cancer based on the HIV Stigma Scale.

Design: Psychometric analysis.

Setting: Online survey.

Sample: 186 patients with lung cancer.

Methods: An exploratory factor analysis with a common factor model using alpha factor extraction.

Main Research Variables: Lung cancer stigma, depression, and quality of life.

Findings: Four factors emerged: stigma and shame, social isolation, discrimination, and smoking. Inspection of unrotated first-factor loadings showed support for a general stigma factor. Construct validity was supported by relationships with related constructs: self-esteem, depression, social support, and social conflict. Coefficient alphas ranging from 0.75–0.97 for the subscales (0.96 for stigma and shame, 0.97 for social isolation, 0.9 for discrimination, and 0.75 for smoking) and 0.98 for the 43-item Cataldo Lung Cancer Stigma Scale (CLCSS) provided evidence of reliability. The final version of the CLCSS was 31 items. Coefficient alpha was recalculated for the total stigma scale (0.96) and the four subscales (0.97 for stigma and shame, 0.96 for social isolation, 0.92 for discrimination, and 0.75 for smoking).

Conclusions: The CLCSS is a reliable and valid measure of health-related stigma in this sample of people with lung cancer.

Implications for Nursing: The CLCSS can be used to identify the presence and impact of lung cancer stigma and allow for the development of effective stigma interventions for patients with lung cancer.

Lung cancer is the leading cause of cancer deaths in men and women in the United States (Centers for Disease Control and Prevention, 2010). Compared to patients with other types of cancer, patients with lung cancer experience the greatest amount of psychological distress (Else-Quest, LoConte, Schiller, & Hyde, 2009; Holland et al., 2010; Zabora, BrintzenhofeSzoc, Curbow, Hooker, & Piantadosi, 2001) and have a higher risk for psychological distress during and after treatment (Akin, Can, Aydiner, Ozdilli, & Durna, 2010; Carlsen, Jensen, Jacobsen, Krasnik, & Johansen, 2005). Psychological distress is a strong predictor of lung cancer mortality (Hamer, Chida, & Molloy, 2009).

Health-related stigma (HRS) is a perceived stigma that has been defined as a personal experience characterized by exclusion, rejection, blame, or devaluation that results from anticipation of an adverse judgment. This judgment is based on an enduring feature of identity conferred by a health issue; the judgment is medically unwarranted and may adversely affect health status (Weiss & Ramakrishna, 2006). HRS has been associated with an increase in the stress associated with illness and contributes to psychological, physical, and social morbidity (Major & O'Brien, 2005). HRS has been extensively studied in patients with HIV and AIDS, mental illness, epilepsy, and physical disability (Van Brakel, 2006), but not in patients with lung cancer.

Stigma in lung cancer is based on the belief that the patient's behavior was the cause of the cancer (i.e., by smoking). Few studies have examined the presence of HRS in patients with lung cancer or its effect on patient outcomes because tools to measure lung cancer stigma did not exist (Van Brakel, 2006). In one study of the meaning of illness, women with lung cancer experienced a range of disruptions in quality of life (QOL), and more than a third of the sample associated lung cancer with negative meaning (Sarna et al., 2005). The purpose of this study was to psychometrically develop and evaluate an instrument to measure stigma as perceived by patients with lung cancer.