

# Cancer-Related Distress: Symptom Clusters in Rural Head and Neck Cancer Survivors

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**BACKGROUND:** Rural post-treatment head and neck cancer (HNC) survivors experience high rates of cancer-related distress and may experience unique symptom clusters. Oncology nurses can benefit from a better understanding of the symptom clusters that HNC survivors experience.

**OBJECTIVES:** The purpose of this secondary data analysis was to identify symptom clusters of cancer-related distress in rural HNC survivors.

**METHODS:** Secondary data analysis was conducted with survey data collected from rural HNC survivors (N = 20). Distress symptoms were measured using the National Comprehensive Cancer Network Distress Thermometer and Problem List, amended for a population with HNC. Symptom clusters were defined as two or more co-occurring symptoms and evaluated based on participant-reported severity using exploratory factor analysis. Resultant clusters were assessed for theoretical and clinical appropriateness.

**FINDINGS:** Preliminary analysis suggests rural HNC survivors experience eight symptom clusters. As a first step, the results of this study can help nurses to identify symptom clusters in rural HNC survivors.

## KEYWORDS

head and neck cancer; survivorship; rural; symptom cluster; symptoms

## DIGITAL OBJECT IDENTIFIER

10.1188/23.CJON.55-61

**POST-TREATMENT HEAD AND NECK CANCER (HNC) SURVIVORS** are two times more likely to die from suicide than survivors of other cancers (Osazuwa-Peters et al., 2018). This disparity is due, in part, to the life-altering physical and psychological effects of cancer treatment, which can cause unmanaged cancer-related distress (negative symptoms related to physical, mental, emotional, social, or spiritual health) in HNC survivors (Deleemans et al., 2020; Ellis et al., 2019; Holland et al., 2013). Because of the nature of HNC cancer treatment, survivors may experience lifelong hearing loss, speech and swallowing disability (Kalyanam et al., 2018; Kristensen et al., 2019), and visible disfigurement (Ellis et al., 2019; Kristensen et al., 2019), all of which can lead to symptoms of cancer-related distress. These treatment effects can lead to avoidance of social situations, isolation from families and communities, decreased quality of life, and negative body image (Ellis et al., 2019; Kalyanam et al., 2018; Kristensen et al., 2019). High levels of untreated cancer-related distress in HNC survivors can contribute to poor health outcomes (DeGuzman, Vogel, Horton, et al., 2022; Deleemans et al., 2020).

Another suicide risk factor among HNC survivors is living in a rural community (Ivey-Stephenson et al., 2017). Many cancer survivors living in rural areas experience poor healthcare access because of long travel times to healthcare facilities or a lack of specialty providers such as oncologists (Segel & Lengerich, 2020). Rural HNC survivors are at risk for poor quality of life (Adamowicz et al., 2022), which can increase symptoms of cancer-related distress (Bernacchi et al., 2021).

One way for nurses to help rural HNC survivors reduce their cancer-related distress is to identify and manage co-occurring symptoms, also known as symptom clusters (Kim et al., 2018). Nurses have effectively identified and developed management strategies for distress symptom clusters for survivors of breast, ovarian, and prostate cancers (Kim et al., 2018; Lynch Kelly et al., 2016; Sheikh-Wu et al., 2020). In a systematic review, Mathew, Tirkey, et al. (2021) identified three symptom clusters in HNC survivors: general, head and neck-specific, and gastrointestinal. One of the next steps in the investigation of HNC symptom clusters is to identify and manage symptom clusters in vulnerable populations (Mathew, Tirkey, et al., 2021), such as rural HNC survivors. The hypothesis of this study was that cancer-related distress symptoms may cluster in rural HNC survivors.

The purpose of this secondary data analysis was to identify symptom clusters of cancer-related distress in rural HNC survivors. Symptom management theory (SMT) was used to guide data analysis and interpretation