Psychosocial Effects of Head and Neck Cancer

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KEYWORDS

• Head and neck cancer • Psychosocial • Surgery • Coping • Adaptation • Body image • Function • Rehabilitation

KEY POINTS

- Head and neck cancer importantly impacts patients' psychological and social well-being.
- The psychosocial effects in the preoperative period cover *coping with symptom discovery and the cancer diagnosis*; *surviving, anticipating functional changes, and information processing*; *communication, patient-physician relationship, and shared decision-making*; and *health behavior change*.
- The postoperative period outlines the following domains: *decisional regret*; *chronic pain*; *posttraumatic stress and fear of cancer recurrence*; *rehabilitation and demoralization*; *disfigurement, dysfunction, and body image concerns*; and *social reintegration*.

This article addresses the perioperative psychosocial aspects of the head and neck cancer (HNC) experience, with implications for clinical practice and future scientific inquiry. The HNC experience can be conceptualized via a *stress-diathesis model*, whereby the stress of being diagnosed with and treated for cancer is understood within and exacerbates the larger context of preexisting biopsychosocial vulnerability.[1] This model is particularly the case in HNC, an illness known for its high levels of anxiety and depression when compared with other oncological populations.[2] Notable stressors faced by patients with HNC include an advanced cancer stage, a high likelihood of cancer recurrence, and extensive treatments involving a high degree of physical symptom burden, disfigurement, and temporary or permanent functional impairments in eating, speech, and breathing. Distress is defined as a "multifactorial unpleasant emotional experience of a psychological (cognitive, behavioral, emotional), social, and/or spiritual nature that may interfere with the ability to cope with cancer, its physical symptoms and its treatment."[3] In HNC, distress has been shown to compromise a variety of outcomes, including physical rehabilitation and quality of life.

PSYCHOSOCIAL ISSUES IN THE PREOPERATIVE PERIOD

The preoperative period in HNC can be characterized by the following themes: symptom discovery and cancer diagnosis; consenting for treatment; communication and shared decision-making; and health behavior change. The goal of this period is to prepare patients for upcoming treatments and the rehabilitative period.

Symptom Discovery and Cancer Diagnosis

Patients typically experience the HNC diagnosis as life threatening, a sense of alarm that is often

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further exacerbated by an advanced stage and life-altering treatments. Diagnostic delays may be experienced with regret and/or anger, as signs may have been minimized until symptoms evolved and/or interfered with the patients' functioning, secondary to the patients' help-seeking habits, low health literacy, misinterpretation of symptoms (eg, tooth ache/dental pain, allergies, or common cold), avoidance-based coping, refusal of having their life interrupted, other life stressors, and/or system delays in referrals.[4]

Patients often experience a variety of emotions, such as fear of mortality, uncertainty about the future, and social concerns.[5] The ambiguity can persist after the diagnosis, as future tests may be needed to determine the extent of the disease, with corollary readjustments made to the treatment plan. The visible impact of treatments on body structures and functioning are not always foreseeable, adding to the uncertainty and requiring flexibility to readjust to unanticipated events.[6] Lazarus's[7] "Transactional Model of Stress and Coping" defines coping behavior as "constantly changing cognitive and behavioral efforts to manage specific demands that are appraised as taxing or exceeding the resources of the person."[7] Coping skills become important as patients assimilate diagnostic- and treatment-related information and are faced with often unwanted changes in appearance and vital functions, considered a trade-off for survival.[8]

Appreciating the cause of HNC is of interest as it relates to coping. HNCs showcase 2 streams: squamous cell carcinoma (SCC), related to tobacco and alcohol use, and human papillomavirus (HPV). An increased clinical incidence of HPV-positive oropharyngeal carcinomas has been noted, requiring an appreciation of the particularities in the experience of SCC- and HPV-related HNCs.[9–11] HPV-positive oropharyngeal patients tend to be younger, with less exposure to alcohol and tobacco, higher socioeconomic status, and higher responsiveness to treatments.[12] Although the prognosis of HPV-positive HNCs is much better than HPV-negative HNCs, their interpersonal nature requires attention.[13] As HPV is often sexually transmitted, patients often need guidance to understand how they contracted HPV, especially as the diagnosis can lead them to reexamine past life behaviors and question couple fidelity. Patients may need information on partner risk, help to address issues around social stigma, and work out potential stress in the patient-caregiver dyad.[6,14] On the other side of the spectrum of cause, patients with alcohol- and/or tobacco-related SCC HNC can exhibit personality traits, such as neuroticism/lack of flexibility, dependency, and lower adaptive coping by over-reliance on denial, avoidance, and substance use.[14,15] Although denial can be a normal initial response to the diagnosis of cancer, its persistent use accompanied by avoidance can interfere with decision-making and self-care, in turn impeding medical outcomes. As part of routine management, patients exhibiting early signs of enduring denial and avoidance should be properly evaluated and followed using a collaborative care model, including consultation liaison and psychosocial oncology services.[2] Clinicians should also be attentive to cognitive impairments and involve geriatric medicine as needed to minimize delays and optimize the medical and psychosocial management of the disease.[16,17]

The role of anxiety preoperatively can be explained by *cognitive models of anxiety*, which propose that attentional biases in the processing of life-threatening information are a primary factor in the cause and maintenance of acute anxiety.[18] These attentional biases consist of a difficulty to disengage attention from the threatening stimuli, impacting the potential to engage in coping.[18] Continuous stressors will further exacerbate the response. The panoply of information concerning disease cause, prognosis, medical management (eg, secondary/reconstructive surgeries, concomitant radiotherapy/chemotherapy), and ensuing complications/side effects in body impairments, activity limitations, and participation restrictions plays an important role in the psychological response. Common reactions include fear, worry, and anguish, which may intersect with feelings of vulnerability, heightening the anxious response and in some cases resulting in a sense of hopelessness and demoralization, as patients may feel at an impasse.[8] Although a cancer diagnosis is undeniably stressful for all, patients with high levels of anxiety or other known markers for vulnerability should routinely be provided with the opportunity for psychological support from the moment of diagnosis to help build resources for coping.

Consenting for Treatment in the Context of a Life-Threatening Disease

The preoperative period requires patients to assimilate information and make complex decisions.[19,20] The capacity for informed consent, defined as a treatment-related decision taking into account the current status and postoperative consequences, may be diminished because of the patients' intrinsic desire to survive taking precedence and potentially reinforcing an attentional bias.[21] As human information processing capacity is limited, selective attention allows one to