



Review Article

Re-visioning and critically emphasizing the need for psychosocial intervention in addressing body image distress in head and neck cancer patients: A review of literature

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ABSTRACT

Head and neck cancers (HNCs) patients undergo extensive debilitating surgeries on the part of their body which is considered as a unique characteristic feature and a central entity to communication and perception, instilling a sense of self: The face. Hereby, alterations and discontinuity in this sense of self lead to fragmentation of body image, thereby shattering the sense of identity and making it difficult for patients to recognize selves and return back to the precancerous identity. Body image dissatisfaction is associated with varied psychosocial adverse outcomes such as anxiety, depression, decreased quality of life affecting social dynamics, romantic relationship distress relating to sexual and intimate health, and excessive efforts spent on appearance-fixing behaviors and the need for constant reassurance. As body image goes way beyond just mere appreciation of self and is a multifaceted, intricate web crucially affecting an individual's identity and existence, it is of utmost importance that medical health professionals aim at making oncologic treatment a more holistic model which considers a patient's mental, emotional and physical well-being. Present literature offers a wide scope for studies focused on psychological distress in breast cancer patients; however, limited empirical research has been conducted on body image concerns and the need for psychosocial interventions in HNC patients. A need for an in-depth understanding into this aspect of psycho-oncology will help oncologic intervention to be more patient-centric, providing the benefits of both biomedical and psychosocial skills.

Keywords: Head and neck cancer, Body image, Psychosocial distress, Health-related quality of life, Psycho-oncology

INTRODUCTION

Head and neck cancers (HNCs) rank among the six most common cancers, with their emerging occurrence trends due to increased consumption of tobacco, pan masala, gutka, etc. In addition, a habitual alcohol intake provides a synergistic effect for the same.^[1] Approximately 20% is owed to the prevalence of persisting precancerous lesions. The oral cavity serves as an easy niche for the upper aerodigestive tract malignancies with squamous cell carcinoma (SCC) making up for about 95%.^[1,2]

HNC patients undergo extensive, taxing physically demanding treatment modalities that include surgical intervention, radiotherapy, chemotherapy, or a combination of treatment regimens.

Surgical intervention is considered the primary modality of treatment in HNC and oropharyngeal cancers. The rich vascularity and lymphatic drainage of the orofacial region make it highly

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susceptible for the early metastasis to regional lymph nodes. Therefore, precise and skillful surgical tactics provide a best prognostic view in relation to complete eradication of tumor and decreased chance of recurrence.

However, such surgical interventions on face: the primary social communication tool making up an integral part of one's self-concept, cause debilitating changes and visible disfigurement that may persist for a lifetime, forming robust intrusive memories causing significantly disturbed body image, further leading to a substantial negative impact on psychological health among patients. A decrease in quality of life (QoL) is greatly influenced by such biopsychosocial factors at play.

UNDERSTANDING BODY IMAGE

“People say they don't notice it, but I do, and I hate it more than anything.”^[3]

Body image is an intricately knitted subjective perception of one's own body and is highly influenced by cultural socialization, varied personality traits, and personal experiences, past or present. It is driven by (a) the body image evaluation and (b) the body image investment, according to Cash's model. The former refers to how far an individual is satisfied with his/her physical appearance, and if at all there exists a discrepancy between perceived and desired characteristics, body image investment measures the extent of value placed on physical attributes. If a patient has high body investment and a preexisting discrepancy with ideality, there is an increased tendency for experiencing body image distress (BID). Cash also distinguishes between the role of historical factors, that is, past events and proximal factors, the current life experiences in shaping body image.^[4]

Further dwelling into the self-discrepancy theory, a discrepancy existing between existing and desired self-identity results in emotional distress, causing repetitive, habitual self-evaluation and self-surveillance, gradually building up into embodied angst.^[5] White's model indicates to consider the subjective nature of the patient's perspective irrespective of the objective opinions.^[6] Newer disease-specific body image models (Head and Neck by Rhoten *et al.*) are seen just at the horizon, holding future prospective for an in-depth understanding.^[7]

Finger describes BID as a continuum and differentiates between patients experiencing body image distress with mild-to-moderate difficulties (might attend social obligations in spite of being a bit uncomfortable) and those with extreme difficulties (avoid social obligations entirely). Sometimes, the patient minimizes them out of shame, guilt, or embarrassment. Under such circumstances, the model proposes that a patient's concern about body image is not pathological but merely a normative response.^[8]

To state body image quality in HNC patients may be summarized by the use of two models: The diathesis-stress model in combination with the Wilson and Cleary model. The diathesis stress model had proposed that health-related QoL includes both psychological and biological determinants of outcomes, while the diathesis-stress model postulates psychological outcomes being influenced by interactions between an individual's diathesis and the levels of environmental stress. Discussed below are the roles of various biopsychosocial factors in determining body image distress.^[9]

ROLE OF BIOPSYCHOSOCIAL FACTORS IN SHAPING BODY IMAGE

Body image may be affected by different factors within medical and social contexts; however, within the medical arena, a strong deterministic factor is disfigurement. Existing literature elaborates that 75% of the patients diagnosed with HNC acknowledges their concern regarding debilitating changes following the intervention, with studies showing a prevalence of 25–77% of patients experiencing BID.^[1]

Body image is a multifaceted aspect, being affected by various sociodemographic factors governing the discussion of this topic. Described below are key takeaway from studies that have analyzed age, sex, education, ethnicity, personality traits, body image investment, time, and smoking status as potential contributors influencing body image.^[10]

Younger, unmarried HNC patients have increased susceptibility to poorer body image satisfaction postoperatively. Moreover, people <65 years of age are also at a higher risk for the same.^[11] Studies addressing the relation between the two sexes and body image found varying outcomes. Some have shown no significant differences between levels of BID in males and females indicating that males may suffer equal distress as females, however, are more likely to go undetected.^[12] Other studies showed females experiencing increased BID in comparison to males which went hand in hand with females considering beauty as their emotional strength.^[1,11]

Variations in ethnicity also may have an influence, with different cultures displaying varying emphasis on attractiveness.^[10]

Furthermore, three studies also found a correlation between body image and level of education. Two of them found no significant impact, whereas one of them indicated that patients with increased academic qualifications had lesser issues pertaining to self-acceptance.^[13] It is worth noting that people with higher educational status have increased awareness and, therefore, display better coping and adaptive strategies, but they may also have increased concerns regarding their beauty standards and functionality. A recent Chinese cohort study elaborates on how higher education is related to increased scores of BID.

Literature highlights increased neuroticism and decreased extraversion in patients with BID.^[14] Yet another interesting and important indicator is the treatment modality.^[10] In addition to disfigurement, surgical interventions can also cause functional impairments. Dysfunction, in addition to disfigurement, carries increased tendency or body image dissatisfaction and also a key determinant of QoL after treatment. For instance, patients who have undergone partial or complete glossectomy may suffer from loss in clarity of speech, in former and complete loss of speech and swallowing in latter. Radical neck dissection, maxillectomy, and mandibulectomy in addition to esthetic deterioration cause dysfunction affecting speech and resonance, lip competency, and eating difficulties due to deformed oronasal separation. A previous study found that patients with speech and eating disability experienced increased/equal BID compared to patients with only esthetic complains.^[15]

Evidence is suggestive of a comparative relationship between various treatment modalities and BI results. Comparative analysis proved that patients with partial glossectomy had the best BI among other surgical modalities. Individuals treated with total glossectomy in addition to inferior maxillectomy and segmental mandibulectomy displayed increased BID, combining dysfunction with disfigurement.^[16] Free flap surgeries show variable results with osseous flaps having higher BID risk as compared to non-osseous flaps due to tissue characteristics, donor sites, etc.^[17]

The extent of the facial area to be sacrificed also affects BID. Patients with grade I staging showed promising body image (BI) in contrast to those with grade III or IV, which were associated with increased BID scores. A study showed that patients with more than 2 cm of tumor mass showed increased concerns about appearance.^[18]

Smokers concurrently had higher BID due to increased chances of wound infection and subsequent difficulty in wound healing leading to higher disfigurement.^[10]

Previous literature has cited the relation between time scale and BID. BI is worst within three months postoperatively but may increase over time due to adjustment and reconstructive surgical interventions. Contradictory to that, it may worsen if patients focus more on appearance and worry less for the recurrence of cancer. Two studies compared BI through pre-operative and post-operative phases, with one of them finding no change in severity over nine months, whereas the other found initial worsening followed by progressive improvement at around 6–12 months.^[13]

IMPLICATIONS OF LIVING WITH DISFIGUREMENT

Fingeret *et al.*^[19] stated that patients may be reluctant to raise concerns about BI with their healthcare providers due to

existing inhibitions, whereas healthcare professionals (HPs), on the other hand, as instated by Furness *et al.*, underestimate the need for psychological rehabilitation.^[20]

“I haven’t got a good self-esteem. To go out, I am very anxious about people watching me, looking at me. Before, you used to look at somebody, and you would make eye contact with somebody, and that’s fine, but now it’s eye contact, and then their contact goes to your face, your neck, and I am quite aware of that.”^[3]

Cash and Pruzinsky’s^[6] work enlightens that patients having visibly evident disfigurement face two challenging aspects (1) having to deal with reactions in social settings and (2) developing body image satisfaction. A multidimensional analysis considering fear of negative appearance evaluation scale (FNAES) and appearance schemas inventory-revised (ASI-R) scales highlighted that patients may spend 1–3 or more hours worrying about appearance and may face difficulty in managing simple tasks as getting out of the bed increased time on camouflaging, grooming, and reassurance seeking.^[10] It was found that male patients are also sensitive to how they looked in contrast to Rennie *et al.*^[21] who had proposed that they prioritize functional capacities over appearance. Interestingly, as a contradiction to females exaggerating the need for cosmetic interventions and make-up to cover flaws, Graboyes *et al.*^[22] pointed out the inability of cosmetic applications in effectively masking the complex effect of BID.

The depressogenic cognitive processing^[23] makes one think of self, people, and future in a negative aspect, making them prone to self-isolate and reduce interactive activities in line with Newell’s fear of avoidance model of psychosocial difficulties following debilitating changes.^[24]

It was suggested that altered facial appearance resulted in altered self-concept due to disruption in perception, sensation, and observation, making it difficult for one to accept their identity and causing social isolation.^[25] Maclas *et al.* research^[17] and Thompson’s works^[26] pointed out that half of the HNC survivors resign and are not able to return back to their work post-surgery due to appearance concerns however, another lot of people may cope with changing jobs. People with disfigurements are often stigmatized socially to such an extent that the United States had to enforce laws to protect them against encountering such untoward behaviors in social settings.^[27]

Constant reminders through scars and disfigurement can cause intrusive memories leading to maladaptive coping etiquettes and avoidance.^[28] A number of people reported facing mirror trauma and becoming distressed while looking at a mirror or window.^[29] A study found that patients felt as if they had lost their identity by losing out on their unique and distinguishing features. It was reported that they feel

less sexually attractive, resulting in difficult emotional connections.^[30] Paterson *et al.*, in studies with breast cancer patients, noted that patients receiving increased emotional support from their partners reflected decreased sexual difficulties and increased psychogenic coping with BID.^[31]

Anxiety and depression emerged as strong predictors for BID even before the surgery.^[32] Incidentally, patients who cited facing BID exhibited higher scores for depression and anxiety postoperatively.^[33] Substantial evidence indicates that BID worsened in cases of persistent depressive symptoms. HNC patients have twofold increased odds of suicidal tendencies compared to other forms of cancer.^[34]

Thereby, understanding of the above framework of various psychosocial variables helps in the implementation of targeted and effective interventions on a timely basis to alleviate BID in HNC patients.

INTERVENTIONAL MODALITIES AND THEIR NEED

Considering a patient's level of subjective satisfaction with physical appearance regardless of objective opinions should be considered as an integral part of psycho-oncological care. As patients might not raise concerns due to existing stigmas, it is imperative that health professionals (HPs) be trained to communicate with increased sensitivity and compassion and initiate discussions with patients and caregivers.

Dropkin's research emphasized the need for pre-operative psychosocial intervention, drawing attention to increased levels of anticipatory anxiety of disfigurative surgery being directly proportional to decreased levels of post-operative coping.^[35] It can be concluded that pre-operative coping effectiveness is a strong predictor for post-operative coping behavior. A retrospective cohort study pointed out how presurgical psycho-educational intervention subsequently encouraged better outcomes on an oncologic basis; however, the body image concerns were not addressed precisely.^[36] Patients feel rushed into the treatment procedural settings without being provided effective psychological care, as a result of which they are not able to process the emotions associated with how they will look like later and hence feel increased vulnerability in anticipation to that.

Identification of biopsychosocial factors and addressing individual components of stigma (anticipated stigma, internalized stigma, and experienced stigma) and enacted stigma serve as a primary tool for understanding the implications. Fingeret *et al.*^[37] proposed the use of the three Cs as a productive way to converse by acknowledging the 'Common' Grievances, asking patients about their specific 'Concerns', and the 'Consequences' of the body image on their daily functioning. Addressing common stigmas, concerns of the patients and consequences constitute the approach of strategy.

Discussing internal mental beliefs^[38] may serve useful to the HP to anticipate the emotional reactions of individuals and additionally also contribute to building a good doctor-patient relationship. Visual imagery influences the shaping of mental images and may prove beneficial on a pre-operative basis. Evidence shows the use of tactful linguistic imagery to positively impact patient experiences.

Existing literature cites that patients endorsed the idea of psychological interventions and believed in deriving benefits before, during, and after completion of treatment. A majority of them expressed more need before treatment to set more realistic expectations. It also reported that patients are more receptive to interventions being provided in the clinics itself as opposed to being referred to a mental health specialist.^[12]

The chief objective should be to avoid any further self-fragmentation and reinstatement and reintegration of self-compassion and body image. A study focusing on expressive writing on self-compassion in breast cancer patients^[37] may serve as a reference for further evaluation customized to HNC patients with BID. Telemedicine-based cognitive behavioral therapy (CBT)^[23] yielded high outcomes in HNC patients and holds a promising prospect. Self-compassion and mindfulness-based approaches help in decreasing self-judgment, whereas CBT, interpersonal, emotional, expressive, and educational therapy target dysfunctional thoughts aiming to decrease rumination.

It was initially established that the image of the human body is a projection of constantly evolving sensory and tactile pictures of one's own body, which they form in their mind psychoeducation may help with maneuvering and channeling the existing schemas improving perceptual and cognitive functions with the discovery of self and spiritual identity, thereby helping to effectively and efficiently manage the complex portrayal of body image distress.^[39]

CONCLUSION

Understanding the vital entangled intricacies between HNC patients and body image, there is an urgent and crucial need for patient care to become more interdisciplinary. A proper in-depth study into psycho oncology and pertaining benefits needs to be explored further with a patient centered team approach of surgeons, oncologists, and psycho-oncologists to balance and effectively implement a combination of biomedical and psychosocial skills for the benefit of the patients and in compliance with the mottos of the entire medical fraternity.

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Use of artificial intelligence (AI)-assisted technology for manuscript preparation

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