Chapter 2
Oral Health-Related Quality of Life and Facial Pain

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Introduction

Orofacial pain, as a specific sensory modality, has four tangible components: perceptual, emotional, visceral, and referral component. Pain can lead to tissue damage. Prevention of tissue damage becomes an overriding concern in the management of orofacial pain. Other states related to facial pain include anxiety, fear, stress, panic, and depression. These states affect the expression of pain [1] and hence the quality of life. Quality of life has been defined as a broad multidimensional concept that includes subjective evaluations of both positive and negative aspects of life. Health, financial status, divorce, bereavement, and other life events impact the quality of life. Disease and infirmity can take their toll by affecting normal physiological functions and hindering daily activities of living. The ability to perform day to day activities liking walking, driving and perception of the sense of smell, touch and taste are crucial to optimal quality of life.

The aforementioned activities and perceptions are altered by disease and need prompt attention. A disorder in question is anosmia: How anosmia leads to loss of olfactory control, which in turn can hinder the ability to sense the multitude of flavors present in food, which is of paramount importance in enjoying a good meal? Maxillofacial injuries apart from causing pain can damage nerves leading to paresis of the tongue with resultant loss of function. It is no exaggeration to state that pain can cause a functional deficit and derange the quality of life.

Health-related quality of life at its best would be a cherished end point for a health care practitioner and has been advocated as a supplemental measure for incorporation in public health policy in addition to traditional measures like statistics related to mortality and morbidity.

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General Health- and Oral Health-Related Quality of Life

Intractable facial pain, which includes orofacial and craniofacial pain, can affect the general well-being of the individual and his or her ability to perform daily chores in a facile manner. This in turn may translate to lost man-hours and a drop in wages and, as a consequence, affect the self-esteem of an individual. This cascading effect resulting from facial pain can lead to tissue damage as well as peripheral and central nervous system sensitization, all of which present a formidable challenge to the treating pain physician. Thus oral health-related quality of life (OHRQoL) should not be viewed in isolation for treatment planning but as an integral part of sound functional overall health.

Facial Disorders, Facial Pain, and OHRQoL

A review of some of the clinical conditions causing pain and affecting the OHRQoL is in order to appreciate the burden of disease on hand.

Jaw Fractures

Fractured jaws are treated with reduction and immobilization using intermaxillary fixation by wires binding the upper and lower teeth together for a period ranging from 6 to 8 weeks. This will entail a transient loss of chewing ability and lead to stiffness and pain in the affected muscles. The patient has to use a feeding cup with a tube placed in the buccal vestibule to enable suction of fluid/puree diet for the period of treatment followed by oral rehabilitation exercises.

Temporomandibular Disorders

The jaw joint can be affected by a host of clinical problems impacting OHRQoL. Subluxation and early-morning locking of the jaws due to intracapsular disorders, clicking sounds, or dislocation of the mandible due to excessive yawning can result in pain and inability to chew food. These disorders can cause varying degrees of temporomandibular dysfunction, pain muscle spasm, and impairment of OHRQoL.

Stroke and OHRQoL

Cerebrovascular accidents can cause distorted facial features, dysregulation of swallowing, and facial paralysis. The OHRQoL is affected to an advanced degree by considerable neurological deficit. Feeding of patients with a neurological deficit of impaired swallowing has to be done with a nasogastric tube in place for extended time periods.

Migraine and OHRQoL

Migraine can be intractable and can cause bouts of prolonged severe pain culminating in absence from work. The condition requires reassurance and pharmacotherapy.

Cleft Lip and Palate

These are congenital defects and impair OHRQoL from infancy through adulthood. The psychological impact of this disorder is tremendous. The biopsychosocial model integrating biologic, psychologic, and social components as propounded by Dworkin Von Korff and LeResche in 1992 has a huge bearing in chronic pain and disorders like cleft lip and palate [2]. The infant needs a feeding plate due to oronasal incompetence. Plastic surgery may be required to correct the cleft, which in turn leads to scarring and mal development of the palate. Orthodontic treatment is also required. It has been stated that individuals with craniofacial anomalies have structurally different faces from normal individuals [3]; this would have a definite bearing on OHRQoL from the patient's perspective, and they may have to be judged on a different aesthetic scale [4].

Ankyloglossia

Ankyloglossia or tongue tie is a distressing condition and needs surgical correction. Compromised movement of the tongue leads to lisping in speech. The emotional dimension of this problem is reflected in an aberrant OHRQoL.

Ageusia

Loss of taste sensation can hamper perceiving the taste sensations of sweet, salty, bitter, and sour. This could also be an occupational hazard in wine tasters and tea tasters if for any reason they are affected by nerve injuries to the face.

Radiotherapy and Surgery for Oral and Nasal Cancer

Treatment of oral cancer often requires radiotherapy which can lead to impaired OHRQoL such as pain in radiation mucositis, xerostomia, and radiation caries. Patients with nasal cancer need a nasal prosthesis after ablative surgery.

Indices for Oral Health-Related Quality of Life

Notable indices are the oral health impact profile (OHIP Slade and Spencer 1994) [5] and the dental aesthetic index [6].

The OHIP is a questionnaire for adults and assesses oral function, pain, social disability, and handicap. The index is widely used and has the potential for translation into different languages to assess oral health quality of life parameters in patients whose native language is not English.

Other indices are the abridged version of the OHIP known as OHIP-14 and OHIP-20; UK oral health related quality of life measure (OHQoL-UK); oral impacts on daily performances (OIDP); Geriatric (General) Oral Health Assessment Index (GOHAI); Child Oral Health Quality of Life Questionnaire (COHQOL); and Orthogenetic Quality of Life Questionnaire (OQoLQ).

The dental aesthetic index, although intended to measure malocclusion, has the elements of malocclusion, social dimension, and psychological dimension built into the index. The index demonstrates the importance of social appearance as an indicator of self-esteem.

Need for Qualitative Research

Qualitative research needs to be conducted across pain settings to gather data on OHRQoL to set targets for correcting oral health disparities and alleviation of facial pain. In addition research aids in identifying populations at risk to assist in formulating public health policies and allocating financial outlays in the health budget to carry out tangible oral health initiatives. Governments of various countries can take a cue from Bhutan who has incorporated "Gross National Happiness" as a quality-of-life measure for progress. The instruments to measure OHRQoL can be tailored to ascertain "within-subject" changes in clinical studies by incorporating disease-specific items in the questionnaire.

Recommendations on Future of Dental Education

Inglehart has cited a stellar recommendation on the future of dental education enunciated by a committee of the Institute of Medicine [7]. These include educating oral health professionals on the perspective of true patient-centered care, sensitivity to transcultural health issues, and perception of oral health in the context of patients' overall health.

Summary

The potential of facial pain to cause tissue damage and its negative influence on OHRQoL has been given credence in this commentary. An overview of various clinical disorders with pain as a cardinal sign has been presented. Future training of dental professionals should include sensitivity to transcultural issues and see oral health as an integral part of general well-being. Alleviation of pain is an important goal in the overall treatment plan of mouth rehabilitation.

In essence, optimal quality of life is the cherished aspiration of every individual. This behooves the health care practitioner to make a paradigm shift in health care delivery to incorporate sound quality of life as an end point in the therapeutic protocol.

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Conflict of Interest None declared.

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