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Psychosomatic disorders in dentistry

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Abstract

The term psychosomatic is derived from Greek word “psyche” (mind) and “soma” (body). A psychosomatic disorder is a disease which involves both mind and body. Sometimes mental and emotional factors may act as risk factor that could influence the initiation and progression of Oro-mucosal disorders.

When these psychological entities are not perceived properly, it may result in somatic disease due to conversion hysteria. Even the oral and paraoral structures show manifestations of these psychosomatic disorders.

Chronic pain, occlusal discomfort, burning mouth syndrome, atypical odontalgia, unexplained oral symptoms/syndromes (MUOS), phantom bite syndrome, oral cenesthopathy and halitophobia are the common oral symptoms seen in dentistry.

These symptoms are thought be the mental or emotional origin. This kind of psychosomatic manifestations is significantly high in dental patients. Dentist should be able to recognised various psychological and pathopsychological conditions and develop new and interdisciplinary approaches to dental management.

The present review has been done from text books and articles relevant to psychosomatic disorders. Relevant articles have been selected and filtered from databases using Mesh terms psychosomatic diseases, oral mucosal diseases, stress, etc., with Boolean operators from 1990 till date.

This review highlights the important aspects of the psychosomatic diseases affecting oral cavity.

Keywords: Conversion hysteria, Oro mucosal diseases, Psyche, Soma, Stress

Introduction

The mouth is the complex and delicate structure of the head and other parts of the body. Mouth is the only part of the body which contains so much symbolism, performs many functions.

According to Shore, the bridge between the oral cavity and the rest of the body, is the mandible. The four compensating parts of the stomatognathic system are the teeth, the periodontium, the temporomandibular joint, and the neuromuscular system. When the balance between these structures is in complete harmony, resulting in physiologic aging when this equilibrium is upset, pathologic conditions may develop[1].

Many dental patients complain of oral symptoms after dental treatment, such as chronic pain or occlusal discomfort, for which the cause remains undetermined. Such symptoms are often thought to be mental or emotional in origin, and patients are considered to have an “oral psychosomatic disorder” [2,3].

Dentists have inherent difficulties with oral symptoms of undetermined etiology, including toothaches of unknown origin. We tend to look for the most likely cause and repeat ineffective dental treatments that fail to relieve the patient's symptoms. We finally conclude that the pain "must be psychogenic" and try to avoid patients with psychogenic pain

In this article, we introduce psychosomatic problems in dentistry by describing representative "oral psychosomatic disorders" and discuss possible future developments in this field.

Mood disorders

These are the clinical conditions associated with loss of self-control and experience of great distress. There can be elevated mood conditions like flight of ideas, decreased sleep, and grandiose ideas. Decreased mood leads to experience of a loss of energy, loss of interest, guilt feeling, loss of concentration, loss of appetite and suicidal tendency.

Other symptoms include change in activity level, speech, cognitive abilities, vegetative functions such as sleep, appetite, sexual activity, and other biological rhythms. These mood disorders lead to impaired interpersonal, social, and occupational functioning.

However, Dentist and the physician neither of them completely realized the relation which the condition of the mouth bears to the total wellbeing of the patient[4]

Psychosomatic disorders

The word "Psychosomatic" was coined by German psychiatrist Hein Roth in 1818. "Psychosomatic medicine" was introduced in 1922 by Felix Deutsch. The word psyche represents mind and soma means body[5].

Definition of Psychosomatic disorder is "disorders characterized by physiological changes that originate, at least in part, from emotional factors". The oral cavity is related directly or symbolically to the major human instincts and passions and is linked to potential physical expressions of psychological origin[6,7].

The concept of psychological medicine was included in the first edition of "Diagnostic and Statically Manual, Mental Disorder" (DSM-1) in 1952 as "Psychosomatic Disorders" and in DSM-II, published in 1968, as Psycho Physiological Autonomic and Visceral Disorder.

In 1980 this is renamed as "Psychological Factor Affecting the Physical Conditions" by DSM III . DSM-5 defines psychosomatic as "somatic symptom disorder" because there is one or more somatic symptoms that are distressing or result in significant disruption in daily life and excessive thoughts, feelings, or behaviors related to the symptoms or related health like

(a) Excessive and persistent thoughts about the seriousness of the symptoms,

(b) Persistently high level of anxiety about health or symptoms, or

(c) Excessive time and energy spent on these symptoms or health concerns[8,9].

Symptomatic state should be persistent more than 6 months or may not be continuously present. The specifiers may be: with prominent pain, persistent, and severity specifiers or mild, moderate, and severe[10]

Medically unexplained oral symptoms (muos)

Patients who complain of physical symptoms without identifiable etiologies are common in clinical medical practice. Such symptoms are known as medically unexplained symptoms (MUS) and are problematic for many physicians.[11]

In oral medicine, many dentists encounter very similar problems. The most typical symptom is chronic oral pain with "nothing the matter", which is a manifestation of burning mouth syndrome (BMS) and atypical odontalgia (AO)[12,13].

Complaints about dental occlusion are peculiar to dentistry. Dry mouth or disturbances in taste and salivation may be common problems that other specialists such as otolaryngologists see[13].

Dentists tend to over treat these patients, and excessive or unnecessary dental procedures may worsen them. In the absence of an effective management strategy, the patient's atypical illness, along with help-seeking behaviors and worries about an unrecognized illness, persist, while frustration and tensions escalate between the dentist and patient[14].

The problems of these patients have been called "oral psychosomatic disorders"; but because of the implication that the problem is "psychogenic", patients are reluctant to accept the diagnosis.

Therefore, the use of another term, "medically unexplained oral symptoms" (MUOS) is preferable. We have reported that the estimated prevalence of MUOS among dental patients ranges from 5 to 10 % or more[11]. Representative MUOS are shown in Table 1

S.no	Medically unexplained oral symptoms
1	Burning Mouth Syndrome
2	Atypical Odontalgia
3	Oral Cenesthopathy
4	Halitophobia
5	Occlusal Discomfort (Phantom Bite Syndrome)
6	Odontophobia

Table 1: Medically Unexplained Oral Symptoms/Syndromes (MUOS).

Chronic oral pain – burning mouth syndrome & atypical odontalgia

The impact of chronic oral pain on quality of life should not be ignored. BMS and AO are both chronic pain disorders that occur in the absence of any organic cause, and they are often regarded as psychogenic conditions[15,16].

BMS is characterized by a burning sensation involving the tongue or other oral sites, usually in the absence of clinical and laboratory findings. Delays in the diagnosis, referral, and appropriate management of BMS patients are frequent[17].

Patients with BMS are often finally told that "nothing is wrong", even though they have severe pain and have not received any effective treatment. They become frustrated, very anxious, and worried about accruing debt for serious diseases such as oral cancer.

BMS is a syndrome that is manifested by not only pain, but also by many other intra and/or extra oral discomforts[18,19], including sore mouth, sensation of dry mouth without hyposalivation, and loss of taste or changes in taste, such as a bitter or metallic tastes. Medications that act in the brain, such as benzodiazepines, tricyclic antidepressants (e.g., amitriptyline), and anticonvulsants (clonazepam) are known to be effective for patients with BMS [20].

Burning mouth pain usually responds to lower dosages in the recommended ranges. Some patients also appear to respond better to low-dose combinations of these medications[20].

Compared to BMS, AO is not as commonly seen in other medical settings, and it has received substantial attention from dentists in recent years [21].

The International Association for the Study of Pain defines AO as severe throbbing pain in a tooth without major pathology. Ineffective treatment of this type of chronic dental pain often is considered to be treatment failure, which results in repeated, ineffective dental treatments to relieve the pain, such as dental filling, root canal, or even extraction.

The resulting iatrogenic changes to the treated tooth leads to difficulty in performing further diagnostic evaluations.

Amitriptyline is one of the more commonly prescribed tricyclic medications for AO. Because of the manyside effects and varied responses to this drug, very few dentists prescribe it. Although psychotherapy may be needed in some cases, in many cases it alone does not result in satisfactory improvement. Dental education should add additional training on the pharmacotherapies for AO[21].

Occlusal discomfort

Occlusal discomfort is a problem unique to dentistry, and some patients irritate their dentists because of their unreasonable complaints, demands, and incomprehensible claims concerning dental treatment. Phantom bite syndrome (PBS) is characterized by a persistent, uncomfortable sensation of occlusion without any evidence of occlusal discrepancy[22,23,24].

PBS is also called “occlusal discomfort” or “occlusal dysesthesia”. Patients complain that their occlusion is “wrong”, “somewhat high/ low”, or “the bite is off.”[25,26]

Because of the ineffectiveness of repeated occlusal adjustments, PBS has been regarded to be a psychiatric disorder related to paranoia, personality disorder, or somatoform disorder. Some investigators recently proposed that brain dysfunctions might be involved[27,28].

Disturbances in oral sensation

A notable number of patients visit dentists because of unusual oral sensations without evident cause. Patients complain of abnormal sensations such as excessive mucus secretion, slimy sensation in the mouth, or a feeling of a foreign body in the mouth, without corresponding pathological findings in the oral cavity. This disorder is called “oral cenesthopathy”[29].

Because of their firm conviction that their annoying symptoms have a somatic basis, the patients with oral cenesthopathy often visit dental clinics rather than consulting a psychiatrist. To make matters worse, the symptoms in most cases are resistant to drug treatment, which results in dentist shopping[30].

For patients with oral cenesthopathy, strategic compartmentalization among medical specialists and regional medical collaborative platforms may be useful, because this approach can consider complaints about other organs, comorbid psychiatric disorders, and the resulting disabilities of these patients.

Progress in brain imaging studies and development of a tool for assessing psychosomatic symptoms associated with the mouth may promote an organized collaborative approach to these patients.[31,32,33]

Bad breath

Mouth odor is one of the most common problems in modern dentistry. Some patients complain of oral malodor that is imperceptible to others. These patients are considered to have halitophobia (delusional or psychosomatic halitosis)[34, 35.]

Halitophobia patients often visit dental offices to determine if their halitosis originates from dental problems. Many investigations of patients with bad breath have involved the removal of anaerobic microbes or volatile. Sulfur compounds and have avoided the mental problems of patients with halitophobia. Therefore, most dentists only evaluate bacterial activity in the mouth and repeatedly clean the teeth and tongue[36].

These procedures are not essential for patients with halitophobia and are usually not helpful. Because halitophobia patients tend to pursue organic causes of their bad breath, providing them with psychological treatment is very difficult.

The patient interprets an immediate psychiatric referral as a sign that the dentist believes that the complaint is "psychogenic": The patient abruptly leaves the dentist and never visits the psychiatrist. Ideally, the dentist can explain the need for treating the psychosomatic aspects of the complaint and can prescribe a selective serotonin reuptake inhibitor along with cognitive therapy[37].

Management of dental patients with muos

Patients with the MUOS discussed in this review tend to develop another symptom after their previous symptom is ameliorated. Even with obvious improvement, these patients never accept the evidence of improvement and continue to complain of minimal residual symptoms[38].

Patients with MUOS may have underlying cognitive distortions that cause them to continue to complain of residual malfunction without regard to obvious improvement as a result of treatment. Although the efficacy of treatment with antidepressants is certainly important, patient-dentist interactions are more critical[38]

Understanding the patient's mental and oral status plus the use of therapeutic techniques that take into account the interactions between mind and mouth are essential to psychosomatic dentistry.

Psychiatric referral is often difficult and usually not helpful. Such patients generally do not accept such referrals. In addition, psychiatrists do not understand oral complaints without a thorough knowledge on dentistry[38].

To make matters worse, psychiatrists also dislike patients with persistent dental complaints, wanting no business with them. However, we have reported that approximately 20 to 30 % of patients with MUOS are thought to have actual psychiatric conditions such as depression, bipolar disorder, and severe obsessive-compulsive disorder[39].

Dentists should acquire sufficient training to be able to recognize these mental disorders so that patients can be referred to the appropriate specialist. Currently, these patients are shunted between dentists and psychiatrists, who shift the responsibility to one another. At least for the time being, it appears that dentists cannot proactively avoid treating patients with MUOS[39].

other oral psychosomatic disorders

According to international classification of diseases psychosomatic disorders can be classified depending on whether or not there is tissue damage:

A - "Psychological malfunction arising from mental factors"

B - If there is tissue damage and psychological factors are associated with disease process the following definition is used: mental unsettling influences or psychic components of any sort might be thought to have had a noteworthy impact in the etiology of certain physical conditions more often involving tissue damage.

In 1980 Mc. Carthy P.L and Shklar. G. classified the oral psychosomatic disorders as follows (Table 2)[40,41]

S no	Psychosomatic disorder	Clinical manifestations
1	Pain related disorders Myofascial pain dysfunction syndrome Atypical facial pain Atypical odontogenic pain Phantom pain	Masticatory muscle spasm, TMJ pain Idiopathic facial pain Tooth ache Phantom tooth pain, Phantom bite syndrome and Intraoral stump pain
2	Disorders related to altered oral sensation Burning mouth syndrome Idiopathic xerostomia Idiopathic dysgeusia Glossodynia Glossopyrosis	Burning sensation on oral mucosa Dryness of oral mucosa Abnormal taste sensation Painful tongue Burning tongue
3	Disorders induced by neurotic habits Dental and periodontal diseases caused by bruxism Biting of oral mucosa (self-mutilation)	Abfractions, Hypersensitivity, Periodontal distraction, Temporo-mandibular dysfunction Torn oral mucosa
4	Autoimmune disorders Oral lichen planus Recurrent aphthous stomatitis Psoriasis Mucous membrane pemphigoid Erythema multiforme	Burning sensation on oral mucosa with interlacing white keratotic lines Ulcers on oral mucosa Geographic tongue, Fissured tongue, Temporomandibular joint pain, Ulcers on oral mucosa Blisters on oral mucosa
5	Disorder caused by altered perception of dentofacial form and function body dysmorphic disorder	“Phantom” dysmorphia

6	Miscellaneous disorders Recurrent herpes labialis Necrotizing ulcerative gingivostomatitis Chronic periodontal diseases Cancerophobia Delusional halitosis	Blisters on oral mucosa Ulcers on gingiva Tooth mobility, Loss of attachment, Boneloss Burning sensation on oral mucosa False offensive mouth odour

Table 2: oral psychosomatic disorders.

Oral lichen planus (olp)

In 1961, Altman and Perry conducted a study on of 197 patients with LP, which revealed that 10% were aware of a precipitating stressful incident at the onset of their LP.

Andreasen pointed out in 1968 that patients with LP were found to be in conditions of stress, anxiety, and emotional changes. Other psychiatric tests include, Hamilton Depression Scale which was demonstrated on OLP patients shows higher depression and Anxiety score[42].

Temporomandibular disorders (tmd)

According to Meldolesi., et al. TMD patients scored higher than healthy controls on the depression, hypochondriasis, and hysteria scales of MMPI[43].

Glossodynia

Eli., et al. conducted a study in 1994, where 56 Glossodynia patient's psychopathologic profiles were evaluated with a SCL-90 questionnaire. In this data, Glossodynia patients showed relatively high psychopathologic profiles, especially on the scales of somatization and depression[44].

Recurrent aphthous ulcers (Ras):

Suwarna Dangore-Khasbage., et al. evaluated the prevalence of RAS, BMS, and OLP in psychiatric patients, they found that the prevalence of RAS, BMS, and OLP was 19.33%, 20.66% and 5.3%, respectively, in all psychiatric patients[45].

Conclusions

Dentists have been struggling because of the increasing prevalence of MUOS and have been asked to adopt a new treatment approach and to leave behind "brainless dentistry" or "mindless dentistry".

In collaboration with specialists in psychosomatic medicine, the pathophysiology of MUOS and psychosomatic disorders should be investigated, with a focus on brain-mouth interactions. The education of dentists who are able to treat not only teeth, but also the patient's psychosomatic oral discomfort is an important priority.

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