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**PUBLISHED PAPER'S TITLE : PSYCHOSOMATIC
DENTISTRY IN DENTAL EDUCATION CURRICULUM.**

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Research Paper

PSYCHOSOMATIC DENTISTRY IN DENTAL EDUCATION CURRICULUM

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Declaration

The declaration of the author for publication of research paper in asian journal of modern and ayurvedic medical science (issn 2279-0772) we Mohammad Faisal1 , Chandresh Jaiswara2 , Uzma Ansari3 , the authors of the research paper entitled psychosomatic dentistry in dental education curriculum. Declare that ,we take the responsibility of the content and material of my paper as we our self have written it and also have read the manuscript of our paper carefully. Also, we hereby give our consent to publish our paper in ajmams , this research paper is our original work and no part of it or it's similar version is published or has been sent for publication anywhere else.we authorise the editorial board of the journal to modify and edit the manuscript. We also give our consent to the publisher of ajmams to own the copyright of our research paper.

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Abstract:

Psychiatric disorders are considerably increasing in last few years and represent a major public health problem. Psychosomatic disorders account for 10% of the global burden of disease, and this is expected to rise to 15% by 2020.Psychosomatic disorders are defined as disorders characterized by physiological changes that originate partially from emotional factors. Psychological disorders can affect the oral cavity, since oral environment is related directly or symbolically to major human instincts and passions and is changed with a high psychological potential. In recent years; much has been reported in literature on the relevance of Psychology in dentistry. It cannot be argued that there are a significant number of patients reporting to the dental office with complaints, signs and symptoms primarily of psychological in origin. Such patients consistently complain of a symptom that he or she interprets as abnormal but the dentist or the physician can find no convincing physical explanation for the same. Although wide spectrum of psychiatric disorders affects the orofacial region, unfortunately they often are unrecognized because of the common and limited nature of their presenting features. This has emerged as one of the most difficult problems faced in clinical practice these days and presents as a challenge for the dental professionals to deal with such patients. Although reports have shown that dentists are able to recognize psychological problems in their patients, there is an apparent lack of training in dentists to assist their patients with such problems. The practice of dentistry is becoming more complex and challenging. Changing socio demographic patterns, busy life schedules, knowledgeable healthcare consumers, rapid technical advances and the information 'explosion' all place greater demands on clinical decision making.

Introduction :

Preclinical and clinical dental students have long been taught medicine and surgery. However psychological illnesses have usually been given scant attention.

There is dire need for mandatory introduction of the behavioural sciences into the dental curriculum which could act as a remedy and help us to address some important problems long ignored. Aim of this paper is to give an outline of the



associated psychopathology in routine dental patients, conditions of particular importance to a practising dentist. A dental professional must have the knowledge of all oral disorders that are usually associated with psychiatric disorders and disturbances, or which have a significant psychological component.

Psychosomatic disorder is a disease which involves both mind and body. There are no diseases that are purely mental or purely somatic, but a living process in a living organism and its vital activity combines mental and somatic aspects of a disease. Hence diseases interact between body and mind, mind and body. Psychosomatic disorders are defined as disorders characterized by physiological changes that originate partially from emotional factors. Psychological disorders can affect the oral cavity, since oral environment is related directly or symbolically to major human instincts and passions and is changed with a high psychological potential. Psychological disorders may be due to several biochemical disorders involving neurotransmitters in the brain, incomplete connections with an oral region and undefined complaints due to cognitive processes to the higher centers of the brain. Psychosocial stress affects the nervous, endocrine, and immunological systems, which are involved in the onset and exacerbation of various diseases. Higher levels of inflammatory cytokines (such as interleukin-6, (IL-6) and acute phase proteins (such as C reactive proteins (CRP) are found in the peripheral blood and cerebrospinal fluid of patients with major depression. The autonomic nervous system supplies the endocrine glands that produce insulin, cortisone, insulin, adrenaline and thyroxin hormones. Since these glands are also controlled by the hypothalamus, emotional changes indirectly influence and affect the hormones. Since there is a close connection between the mind and the body, people often react physically to an

emotionally stressful even. Psychosomatic disorders are characterized by multiple physical symptoms. They are not intentionally produced or feigned and they are believed to be associated to psychological factors. Psychological states influence all the body processes by three different mechanisms including neural, hormonal and immunologic .Under the influence of stress, there is alteration of neurotransmitters & hormones inside the body which leads to translation of an emotion to either **psychosomatic disorder or somatoform disorder.** **Psychosomatic disorder** involves real physical illness that is largely caused by psychological factors like stress and anxiety . These disorders can initiate or aggravate lesions in the oral cavity like lichen planus, pemphigus, aphthous stomatitis, bullous pemphigoid, ANUG, lip licking cheilitis, Stevens Johnson's syndrome and cicatricial pemphigoid .

Somatoform disorders

involve apparent physical illness without any organic basis to them. These constitute orofacial pain, burning mouth syndrome and temporo-mandibular disorders .

Classification of oral Psychosomatic disorders:

can be categorized in to following groups, (A) Pain related disorders. (B) Disorders related to altered oral sensation. (C) Disorders induced by neurotic habits. (D) Autoimmune disorders. (E) Disorders caused by altered perception of dentofacial form and function. (F) Miscellaneous disorders.

(A) Pain related disorders:

These include disorders of the orofacial region presenting with vague pain attributed to psychological stress. This category includes,



- Myofascial pain dysfunction syndrome– It's clinical presentation includes masticatory muscle spasm and temporomandibular joint pain.
- Atypical facial pain – It is characterized by persistent idiopathic facial pain, which lacks clear diagnostic criteria.
- Phantom pain -It involves sensation of a part of body that has been removed. It is usually associated with tooth extraction. It can be graded in to phantom tooth pain, phantom bite syndrome, and intraoral stump pain.

(B) Disorders related to altered oral sensation:

This category includes following subcategories:

- Burning mouth syndrome- It is a disorder presenting with burning sensation of oral mucosa for which no medical or dental cause can be found.
- Idiopathic Xerostomia- It presents with dryness of oral mucosa and it is associated with quantitative and qualitative changes in saliva.
- Idiopathic dysguesia – It represents as persistent abnormal taste sensation.
- Glossodynia – Patient experiences painful tongue.
- Glosspyrosis – It is burning sensation of tongue.

(C) Disorders induced by neurotic habits:

These disorders can be subdivided in to following disorders,

- Dental and periodontal diseases caused by bruxism– It includes abfractions, hypersensitivity, periodontal distraction and temporomandibular dysfunction.

- Biting of oral mucosa – Self mutilation due to biting of oral mucosa.

(D) Autoimmune disorders:

This category includes common dermatological disorders with oral manifestations and includes followings,

- Oral lichen planus – It presents with burning sensation in oral mucosa with interlacing keratotic lines.
- Recurrent aphthous stomatitis- It presents with ulcers on oral mucosa.
- Psoriasis - Psoriasis may be associated with fissured tongue, geographic tongue, temporomandibular joint pain and ulcers on oral mucosa.
- Mucus membrane pemphigoid – It is associated with blisters on oral mucosa.
- Erythema multiforme – It can present with ulcers on oral mucosa.

(E) Disorders caused by altered perception dento-facial form and function:

- Body dynamic disorder – It is phantom dysmorphia. The patient seeks treatment for an impaired defect in appearances.

(F) Miscellaneous disorders:

- Recurrent herpes labialis – Patient complains of blisters on oral mucosa.
- Necrotising ulcerative gingivostomatitis – It is characterized by gingival necrosis, ulceration, pain and bleeding.
- Chronic periodontal diseases-It is characterized by tooth mobility, loss of attachments and bone loss.



- Cancerophobia- Persistent fear in a person that he/she has contracted oral cancer is called cancerophobia.
- Delusional halitosis – It is characterized by false offensive mouth odour.

Oral cavity is extremely reactive to emotional influences like stress, anxiety and depression; oral diseases may arise as a direct expression of emotions, or indirect result of psychological alterations. Emotional alterations can disturb hormonal, vascular and muscular functions, which may result in physiologic changes causing pain, burning sensation and ulcerations. Although wide spectrum of psychiatric disorders affects the orofacial region, unfortunately they often are unrecognized because of the common and limited nature of their presenting features. Various researchers confirmed that, psychogenic diseases like anxiety and depression causes physiologic changes resulting in the development of oral mucosal diseases like OLP, RAS, BMS. Given the high prevalence of mental disorders in general population, dentists frequently treat patients who have noticeable abnormal behavior as well as patients who have psychiatric disorders that are not easily identified or obvious. There is a need for dental professionals to be aware of patient vulnerability factors and psychological problems due to the possible negative effects of psychological distress and critical incidents, and their consequences for both symptom presentation and dental treatment planning.

Since the oral tissues are highly reactive to psychological influences, oral symptoms are common psychosomatic manifestation. Psychological factors results in the alteration in the nervous system markers [Catecholamines; Adrenaline, Noradrenaline, and Dopamine], Endocrine system markers [Cortical and Aldosterone], and Immune system [T cells, B cells and Natural Killer cells,

Immunoglobulin's] resulting in the initiation/ pathogenesis of the oral disease . Although in majority of cases the cause is dental disease which can be easily diagnosed, the remaining are often difficult to diagnose and treat. Many researchers have found out a psychological parameter involved in these disorders. Much has been reported in literature on the relevance of Psychology in dentistry. It cannot be argued that there are a significant number of patients reporting to the dental office with complaints, signs and symptoms primarily of psychological in origin. Such patients consistently complain of a symptom that he or she interprets as abnormal but the dentist or the physician can find no convincing physical abnormality.

It is not uncommon to see the patients diagnosed with "Oral Psychosomatic Disorders", so there is a growing need for proper treatment of the disorders from both sides of doctors and patients. It is, therefore, extremely important for dental students to be instructed in psychosomatic dentistry.

This practice is arduous effort, but in the future, it is hoped that efforts will be made to facilitate uniformed services for patients with dental psychosomatic disorders, enhance coping skills for refractory cases, and reduce trouble with patients by the graduates of our department who mastered psychosomatic dentistry

Conclusion:

It can be concluded that training in psychological counseling should be a part of the dental undergraduate curriculum. However further studies are required in this context. Further the introduction of psychology as a separate subject with emphasis on oral psychosomatic disorders is recommended which could separately be termed as "**psychosomatic dentistry**".



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