

Dental Concerns of Patients with Mental Disabilities- A Review

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Abstract

Oral health plays an important role in patients suffering with mental disorders. It is important to focus on a multidisciplinary approach including psychiatrists, general practitioners, dental practitioners, psychologists and nutritionists. The most common dental diseases encountered in patients with mental disorders are dental caries and periodontal diseases. Thus, it is required to bridge the professional gap for maintaining adequate oral health and for diagnosing the mental health issues. In the present review article, we emphasize an overview on providing the basic information about the dental concerns of patients with mental disability. The electronic database included Pub Med, Medline, Science Direct, Goggle Scholar using terms mental disability and Down syndrome etc. Relevant articles published in English on reference lists were identified and retrieved from electronic and print journals.

Keywords: Dental practice, Mental disabilities; Oral health.

Introduction

A mental disorder is defined as a significant clinical disorder affecting behaviour, cognition, and emotions of an individual [1]. It is generally linked with impairment of functions and suffering. Various types of disorders have been identified affecting mental health like Neurodevelopmental disorders, disruptive behaviour, dissocial disorder, eating disorders, schizophrenia, Post-Traumatic Stress Disorder (PTSD), bipolar disorder, depression, and anxiety disorders etc.

It has been observed that in the year 2019, around 970 million people or 1 in every 8 persons were affected with anxiety, depression, and mental disorders [2]. In the year 2020, this rate of prevalence increased significantly due to COVID-19 pandemic. In just one year, data revealed an increase of 26% for anxiety and

28% for major depressive disorders [3]. Among Indian population, WHO estimated that the load of mental health disorders is around 2443 disability-adjusted life years (DALYs) per 10,000 population. It has been reported that according to age, rate of suicide is around 21.1 per 100,000 population [4].

Mental health of patients is determined by capability of an individual to manage one's behaviours, emotions, thoughts, and interactions with others. Additionally factors like genetics, personality, psychology, society, culture, financial condition, and environment play a significant role. Although different awareness and preventive programs are available and even various treatment options also exist, many patients suffering with mental disorders do not have adequate access to effectual care [5].

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It has been advocated that patients suffering with mental disorders have increased risks of co-morbidity and have poor oral health as compared to normal individuals. But still oral health is a neglected health care issue for such individuals. This might be because of various associated factors like fear and anxiety related to dental treatment, deleterious dietary habits like substance abuse, intake of alcohol and tobacco, heavy use of sugary drinks, use of drugs like psychostimulants, anti-psychotic, and anti-depression; barriers to assess dental treatment like social, financial, and geographic restraints [6]. The use of antipsychotic agents causes a negative effect on oral healthcare leading to dry mouth, thus causing gingivitis, dental caries, and periodontal diseases [7-8].

The present review was conducted to study the dental concerns of patients with mental disabilities.

Mental Health Problems in Dental Practice

Mental health problems are categorized into (i) Organic (recognizable brain disease) and (ii) Functional (no noticeable brain structural abnormality), or they are also classified as (i) psychosis and (ii) neurosis. American Dental Association (ADA) recognized various commonly encountered psychiatric problems like psychotic, anxiety, mood and eating disorders. Obsessive-compulsive disorder (OCD), post-traumatic stress disorder (PTSD), phobias, and generalized anxiety disorder (GAD) are different anxiety disorders. Mood disorders include major depressive disorder (MDD) and bipolar disorder. Psychotic disorders include schizophrenia, whereas commonly encountered eating disorders are bulimia nervosa and anorexia nervosa [9].

Determinants Affecting Mental Health Status

Various determinants of mental health are recognized. In the brain various neurotransmitters were secreted like

phenylethylamine, neuropeptide Y, epinephrine, dopamine, glutamate, oxytocin, acetylcholine (ACh), noradrenaline, endorphins, gamma-aminobutyric acid (GABA), enkephalins, serotonin (5-hydroxytryptamine, 5-HT), and substance P. Neuroimmunomodulation can also be related to psychiatric disorders. It has also been found that mental health disorders can occur due to poor oral health.¹⁰ Periodontal diseases cause imbalance in production of cytokines like interleukin IL-1 β , (IL)-6, and interferon (INF)- γ with immunosuppression, that plays important role in causing mental disorders. Thus, it is required to effectively treat oral health ailments like periodontal diseases to control the further development of already existing problems affecting mental health [10].

Risk Factors in Patients having Mental Health Problems in Dentistry

It is important to consider the patient while treating dental disorders. Patients suffering with mental disorders are subjected to multiple medications, so it is important to consider various side effects and reactions while treating dental diseases and prescribing medicines to avoid unnecessary drug interactions [11].

Psychotropic Drugs Affecting Oral Health and its Interactions

For psychological disorders, the commonly prescribed drugs are antipsychotics, sedatives, antidepressants, anxiolytics, and drugs for bipolar disorders. Various side effects commonly encountered with psychotropic drugs are dental caries, bruxism, xerostomia, candidiasis, post-surgical bleeding, and hyper salivation [12].

Effect of Covid-19 on Mental Health and Oral Health Status

It has been studied that COVID-19 pandemic produced distressing effects on emotional and mental health of individuals. A study by Tiwari T et al.¹⁰ assessed the correlation of status of oral health and its utilization with mental health

of patients. They observed that poor status of oral health among the patients was linked with deteriorated status of mental health during COVID-19 pandemic.

Various Mental Disorders and Their Effects on Oral Health

Anxiety is related to disturbances in behaviour patterns and featured by episodes of worry and fear. In 2019, WHO reported that around 301 million people were suffering with anxiety disorders, out of which 58 million were children and adolescents [4]. Anxiety is characterised by a significant level of distress and impaired functioning. Various conditions have been reported in patients including dental caries, abscesses of the oral cavity, pulpal infections, lesions affecting gingival, periapical, and periodontal lesions [13]. It has been found that smoking is more prevalent in patients suffering with mental health disorders that in turn raises the risk of dental caries because of changes in the buffering capacity of the saliva [14]. Anxious patients show signs of tremor, and agitation while undergoing dental procedures.

Depression is the state when patients' experience episodes of depressive mood like irritation, sadness etc. WHO reported that in the year 2019, around 280 million persons were found suffering with depression [4]. It is characterised by poor concentration, hopelessness, disturbed sleep, suicidal attempts etc. Depression has a strong effect on oral health. It has been advocated that incidence of dental caries was more in patients with depression. Besides caries, incidence of xerostomia, gingivitis, oral lesions, oral candidiasis, and temporomandibular joint disorders are common [15].

Schizophrenia is a severe mental disorder characterised by incompetent patterns of thought, behaviour, delusions, hallucinations etc. According to WHO, schizophrenia affects around 24 million people⁴. Patients normally presents with poor oral hygiene, xerostomia,

caries and loss of teeth. Antipsychotics given in patients causes various extrapyramidal symptoms like tremors causing impaired tooth brushing causing poor oral hygiene [16].

Bipolar disorder is featured by changes in mood that range from episodes of agitation or hyperactiveness to depression. They suffer from xerostomia, dental caries, bruxism and problems in perceiving flavours. Around 40 million people were suffering with bipolar disorder in 2019 [4].

Post-Traumatic Stress Disorder (PTSD) develops after exposure to any horrifying or threatening events. It is featured by nightmares, flashbacks etc. that persist for several weeks [4].

Dementia is caused by disorientation, loss of memory, and cognitive impairment. It causes increased incidence of dental caries due to reduced flow of saliva [17]. Bruxism is characterised by the coexistence of panic and stress. It is featured by clenching of teeth causing tooth wear, headaches, pain, impairment in speech and swallowing [18-20].

Conclusion

The present review reflects a bidirectional association between oral and mental health. Although dentistry has advanced to new heights, patients suffering with mental disorders do not have adequate access to proper oral health care. Lack of skill and knowledge in special needs dentistry is a major barrier in maintaining oral health. Similarly, it is required to train psychiatrists to screen oral health among patients. Thus, it is required to bridge the professional gap among both the branches for maintaining adequate oral health-related quality of life [OHRQoL] and for diagnosing the mental health issues to investigate further insights.

Conflict of Interest

Author declares that there is no Conflict of interest.

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