

## Psychiatric Implications for Implant Dentistry Best Practice for Patient and Provider

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Received: 18 November 2018; Accepted: 05 December 2018

**Citation:** Heidi Magyar. Psychiatric Implications for Implant Dentistry Best Practice for Patient and Provider. Oral Health Dental Sci. 2018; 2(2); 1-4.

### ABSTRACT

*Dental implants have changed the face of dentistry over the past 30 years. This extensive, permanent procedure is used to treat people with terminal dentition, dental aversion, and for cosmetics; it is both a functional and aesthetic procedure. Other invasive and permanent procedures such as gastric bypass and cosmetic plastic surgery rely on a psychiatric evaluation prior to surgery to either rule out inappropriate candidates or develop a plan for management. However, research suggests that this is not a common practice among oral surgeons and dentists. Failure to screen for psychiatric illnesses leaves the dentist and the patient vulnerable to a myriad of potential time consuming and costly problems. It is not always evident initially that a person may be inappropriate for implants and being able to identify warning signs early is essential because once the surgical process has started, it is a long-term commitment that is extremely difficult or impossible to reverse.*

*The aim of this manuscript is to increase awareness of the unique needs, not only of the patients, but also the provider. Understanding the impact that patients with mental illness have on a practice is important and care must be taken to determine if implant procedures are appropriate. This presentation will center around three psychiatric disorders particularly relevant to aesthetic dentistry. They are: 1) dental phobia, 2) obsessive-compulsive disorder, and 3) body dysmorphic disorder. Suggestions for screening prior to surgery will be also discussed. It is important to note that these illnesses are not obstacles for every patient who experiences them, but good practice warrants an understanding of these disorders for the development of a positive approach to treatment.*

### Keywords

Dental implants, Mental illness, Screening tools.

### Introduction

Dental implants have changed the face of dentistry over the past 30 years. This extensive, permanent procedure is used to treat people with terminal dentition, dental aversion and for cosmetics; it is both a functional and aesthetic procedure [1]. Other invasive and permanent procedures, such as gastric bypass and cosmetic plastic surgery rely on a psychiatric evaluation prior to surgery to either rule out inappropriate candidates or develop a plan for management [2]. However, research suggests this is not a common practice among oral surgeons and dentists. Failure to screen for psychiatric illnesses leaves the dentist and patient vulnerable to a myriad of potential time consuming and costly problems. It is not always evident initially that a person may be inappropriate for implants and being able to identify warning signs early is essential

because once the surgical process has started, it is a long-term commitment that is extremely difficult or impossible to reverse [3,4].

### Overview

It is important to discuss psychiatric illness as it relates to implant dentistry. Dental professionals should know that psychiatric disorders are prevalent and under-diagnosed. Many people worldwide suffer from mental illness and the National Institute of Mental Health reports that in America 55.7 million experience some form of mental illness [5]. Most disorders vary in degree of intensity and on the surface, many do not appear to be out of the range of ordinary behavior or potentially problematic. Psychiatric disorders have implications for aesthetic surgery and it can be difficult to determine how they may impact procedures during the standard initial interview [3]. Also, conditions such as personality disorders can interfere with treatment and disrupt the development of a therapeutic relationship that is necessary for successful

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outcomes and on-going follow up care [6].

Substance abuse disorders are very common comorbid conditions that can derail treatment compliance and also have serious health consequences. It is estimated that 7.9 million persons with a psychiatric illness also have co-occurring drug or alcohol dependency [7]. Smoking is more common in this population and it is reported to occur in 70 % of persons with mental illness [8]. There are direct consequences that affect dental implants and in smokers the failure rate of implant osseointegration is greater, there is increased marginal bone loss, and implants placed in grafted maxillary sinuses fail twice the rate of nonsmokers [9,10].

Psychiatric medications can also have implications for treatment. Patients do not always come forward with information about psychotropic medication fearing the stigma attached to having a mental illness. Many of these medications target muscarinic receptors resulting in xerostomia that worsens peri-implantitis and general periodontal disease [10,11]. Also, medications for some conditions are controlled substances, such as benzodiazepines, that may have serious drug interactions with anesthetics used in surgery [11].

Finally, screening for these conditions is crucial to increase awareness among oral surgeons and restorative dentists of the possible risk for violence and lawsuits. Unrealistic expectations, poor impulse control, and lack of boundaries are greater in this patient population and often lead to serious consequences [6,12]. For example, it is estimated that 40% of cosmetic surgeons and 12% of dermatological surgeons have been intimidated or harassed by patients with mental health issues and over the past 20 years at least five American plastic surgeons have been murdered [2]. The use of dental implants is on the rise because of increased indications and their versatility [13]. Also, the growing number of advertisements depicting an effortless procedure, fast completion times, and positive results have increased public interest, bringing with it an increased risk for potential complications and malpractice suits. Legal action can be reduced or even prevented with proper screening and increased awareness of psychiatric diagnoses. Recognizing the potential for these situations in advance, while respecting and preserving the dignity of the patient is imperative. Reducing the stigma of mental illness should be a goal of every health care provider.

The purpose of this article is to increase awareness of the unique needs, not only of the patients, but also the provider. Understanding the impact that patients with mental illness have on a practice is important and care must be taken to determine if implant procedures are appropriate. This discussion will center around three psychiatric disorders particularly relevant to aesthetic dentistry. They are: 1) specific phobia, 2) obsessive-compulsive disorder, and 3) body dysmorphic disorder. Suggestions for screening prior to surgery will also be discussed. It is important to note that these illnesses are not obstacles for every patient who experiences them, but good practice warrants an understanding of these disorders and the development of a positive approach to

treatment.

## Psychiatric Disorders

### Anxiety Disorders

According to the Diagnostic and Statistical Manual of Mental Disorders (5th ed., DSM-5), anxiety disorders share fear as the core emotional response to a real or perceived threat and the anticipation of future threats [6]. The fear is typically excessive and out of proportion to the situation. Anxiety disorders are highly comorbid and it is common for several to exist simultaneously, each with their own diagnostic criteria, prevalence rates, and culture-related features [6]. Anxiety can severely affect implant dentistry because anxious patients have a greater pain response than the general population [14]. This makes even simple procedures complicated; requiring more time, more anesthesia, and creating more stress among the dental team. It is important to note that sedation used during dental surgery will temporarily mask anxiety. However, the underlying anxiety remains after the surgery and may likely impact the restorative dentist who has the complex responsibility of the final restorative process. One common anxiety disorder that would influence dental practice is specific phobia.

### Specific phobia

The hallmark of specific phobia is anxiety or intense fear of an object or situation [6]. There are many manifestations of specific phobia and one of the most common is dental phobia, also referred to as dental anxiety. Among the general population, the prevalence rate is between 7-9%; however, in patients scheduled for a dental procedure severe dental anxiety can increase to 10 – 30% [15]. A study conducted by Oosterink, de Jong, & Hoogstraten [16] found that among all phobias, dental phobia was the most common, and that the fear associated with it was more severe and resulted in more intrusive re-experiencing than other phobias.

Phobias can develop directly from a negative or painful experience and even indirectly by hearing about information that creates anxiety for an individual. Often, the origin of the phobia cannot be identified due to an early onset in childhood, usually before the age of 10. Because this disorder begins in early childhood, oral health care can be severely compromised leading to problems later in life.

The diagnostic criteria include: 1) exaggerated anxiety that is out of proportion to actual danger, 2) the fear is immediate and causes impairment in functioning, 3) the fear has lasted at least 6 months, and 4) active avoidance is commonly the behavior to minimize the phobic situation [6]. Avoidance of dental treatment can result in severe health problems but particularly in post restorative care and continuing maintenance. Also, the consequence of avoidance is that untreated dental problems worsen with time. This can be a self-fulfilling prophesy of increased pain and make future interventions potentially more complicated. This in turn creates a cycle that reinforces avoidance behavior and reduces the quality of life [14].

### Obsessive-Compulsive and Related Disorders

Once listed under anxiety disorders in the DSM - IV, these

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two disorders now have their own DSM-5 category and can be potentially very problematic for dental practices. Obsessive compulsive disorder (OCD) and body dysmorphic disorders (BDD) still have an underlying base of anxiety, but have been found to have criteria that is distinct from anxiety alone. The persistent and recurrent presence of unwanted thoughts and urges are paired with compulsions that an individual is driven to perform in response to the obsessions. There are rigid rules and preoccupation with performing repetitive acts to reduce or stop the obsessions. Another shared feature of both disorders is a varying degree of insight ranging from good to poor to absent [6]. However, it is much more common for a person to have good insight and still be unable to control the obsessions. Familiar to most providers who work in psychiatry or psychology is the response “I know it sounds crazy, but...” when asked about their condition.

### **Obsessive-compulsive disorder**

This disorder is defined as the presence of recurrent obsessions with thoughts or urges that is unwanted, cause significant distress, reduces the quality of life, and is associated with high levels of functional impairment. These unwanted ideas cannot be eliminated by logic or reason. The content of these intrusive thoughts vary among individuals. Common examples include contamination fears, religiosity, and urges to hurt someone, checking, symmetry, and perfectionism [6].

Compulsions are the repetitive, ritualistic behaviors or mental acts performed to reduce or stop obsessions. These acts are not usually connected in a meaningful way or are behaviors performed in extreme excess. For example, a person who has an urge to stab someone may have the compulsion to repeat a certain word while tapping a table three times to prevent the action; or with contamination fears, the person may repeatedly and aggressively wash their hands until they bleed. The criteria for obsessions or compulsions are that they are time consuming and take more than one hour a day; however, in practice four to eight hours is common. In severe cases, the rituals are so time consuming they can be disabling [5,6].

Screening for the degree of impairment associated with OCD is recommended. There are many situations that can trigger OCD in a dental practice. Obsessing over symmetry of dental appliances, sensitivity and hyperawareness of imperfections, dissatisfaction with shape and color shades of dental implants, contamination fears and anxiety over contracting a disease through dental equipment are just a few scenarios that may present. Another common obsession is excessive oral hygiene concerns with prolonged, ritualistic tooth brushing that can last hours and interferes with daily functioning. Dental hygiene rituals can include checking behavior with frequent placement and replacement of overdentures to the point of breakage. In untreated OCD, reasoning is unacceptable and reassurance is met with skepticism [17].

### **Body dysmorphic disorder**

Because of the unique nature of this disorder, persons with body dysmorphic disorder are likely to seek out cosmetic surgery far

more than any other psychiatric disorder [17]. Body dysmorphic disorder is defined as a preoccupation with a real or imagined flaw in appearance that is slight or not even apparent to others. The concern is markedly excessive to the point that individuals believe they are ugly or repulsive. In severe cases individuals are unable to work or even leave their homes [17]. The focus can be on one or more body parts, but the most common areas are skin, hair, nose, teeth, breasts and genitals. Concerns with size and symmetry of body parts are common. Winfree et al., (2014) state that the dentofacial region is often a focus of those with BDD and this preoccupation occurs in 20% of those diagnosed with the disorder [17]. Frequent and repetitive checking in mirrors, picking, camouflaging, and constant grooming are in response to the preoccupation. These preoccupations cause significant distress or impairment in functioning, and as with OCD are intrusive, unwanted, and time consuming. The average time spent with these behaviors range from 3-8 hours a day [6,18].

This condition is not new and has been described for over 100 years, but there is little in the literature available on BDD and implant dentistry. In recent years BDD has become identified as one of the main reasons people pursue aesthetic dental treatments. Surveys indicate that up to 76% of persons with BDD sought cosmetic treatment and only 35% of persons were refused treatment. Adding to the problem is that these individuals are eager for surgical intervention and can appear as ideal patients requiring little or no convincing. However, a person who is highly enthusiastic with unrealistic expectations should be a red flag for potential irreversible dire consequences for the practitioner involved [19]. Recognizing and screening for this disorder is essential due to multiple risks associated with it. Dentists should be aware that surgical and restorative procedures are rarely perceived as beneficial by the patient. Suicidal ideation is common, occurring in 78% of cases and suicide attempts range from 17 to 33% [6,18].

There are ethical issues to consider regarding cosmetic surgery in this patient population. Persons with BDD want to have surgical procedures even for minor problems such as tooth color and the dentist runs the risk of enabling patients to continue the belief that their perceived imperfections indeed require surgery [17]. Because of high levels of dissatisfaction with the treatment, there is often a demand for further treatment, refunding, and/or a lawsuit [18]. Clinicians experienced with this disorder agree that if BDD is suspected, it is in the best interest of both the patient and the provider to refer for a formal psychological evaluation before pursuing a permanent surgical intervention [17,18].

### **Expectations and Outcomes**

Before implant surgery it is imperative to take a thorough history and screen for possible mental health disorders. This is not to be confused with a formal assessment or a psychiatric evaluation. An assessment implies a complete clinical picture including psychological testing, which is not the role of the dentist and not within the scope of a dental practice. The American Psychological Association does encourage the use of screenings to identify high risk patients that supports the need for a more in-depth evaluation

by a psychiatrist or psychologist. Screening for psychiatric disorders is important because people do not always come forward with necessary information on their health histories for fear of the stigma attached or the possibility of being turned away [2]. Furthermore, screenings are brief and can be administered by the provider, support staff, computers or self-administered [19]. Two popular screening tools include The Cosmetic Procedure Screening Scale and The Appearance Anxiety Inventory [20,21].

Prior to screening, awareness should be first and foremost; the initial consultation is an opportunity to observe behavior and gather useful information [22]. For the anxious patient, body language speaks volumes; somatic symptoms of panic and anxiety are readily observable and should be explored. They include sweating, trembling, shortness of breath and dizziness [6]. There are also visible signs of a dysmorphic patient such as constant checking or frequent “selfies”, camouflaging or covering the mouth when speaking, excessive makeup or tanning, and excessive concern for a perceived flaw [18,22]. Realistically, this may not be the first attempt at a surgical or restorative intervention and “doctor shopping” is common. Also, complaints about previous treatment, unrealistic expectations, and demanding behavior should be cause for concern.

In addition to awareness, determining whether expectations are realistic or not is crucial for a successful outcome. Expectations include both physiological and psychological needs that ultimately play a role in patient satisfaction and can have far reaching emotional consequences [23]. Realistic expectations of dental implants include improved function/ chewing ability and also improved appearance [24]. Unrealistic expectations typically involve external factors such as being the solution to life’s problems, believing the procedure will save a relationship, secure a promotion at work, look like a Hollywood icon, or a desire to look like the younger version of themselves [25]. Preoccupation with flaws that the dentist feels are minor and surgery based on comments or suggestions from others are also predictors of poor outcome.

Finally, the best outcomes result from a collaborative relationship with the patient. Studies have shown that the quality of communication between the patient and practitioner determines the level of satisfaction with their care [23]. An open discussion with the patient will help determine if dental implants are appropriate. Unfortunately, many dentists and oral surgeons already know that one bad outcome can be demoralizing and lead to a significant financial loss. That said, the aim of this article is to increase awareness of psychiatric disorders and the impact they may have on a dental practice.

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