

# PATIENTS WITH PSYCHIATRIC DISORDERS: WHAT THE GENERAL DENTAL PRACTITIONER NEEDS TO KNOW

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## ABSTRACT

Psychiatric illness is extremely common and the general dental practitioner (GDP) will inevitably encounter patients with such an illness. This article outlines common psychiatric conditions that the GDP should be familiar with alongside its impact on oral health. It also gives a systematic approach to dealing with a patient who presents to practice with an undiagnosed psychiatric illness, whereby the illness interferes with delivery of suitable dental care.

There is a high prevalence of psychiatric disorders with approximately one in four people experiencing a mental health problem each year.<sup>1</sup> As such, the general dental practitioner (GDP) will inevitably encounter patients with these conditions. Patients with psychiatric illness may not volunteer unsolicited information either because they perceive it to be of no relevance to the dentist or they may be embarrassed about their illness.<sup>2</sup> Furthermore, the GDP may encounter patients who have an underlying undiagnosed psychiatric illness. It is therefore imperative that the GDP has an understanding of common psychiatric illnesses and its impact on oral health. They may be in a unique position to recognise patients with undiagnosed psychiatric illness and initiate referral to suitable mental health services. This article outlines the impact of psychiatric illness on patients' dental health and treatment and how to identify patients with an undiagnosed psychiatric illness. It also outlines an approach that GDPs can utilise when faced with a patient with an undiagnosed psychiatric illness.

## Patients with undiagnosed psychiatric illness

Often, the GDP will face patients that may have a psychiatric illness but are yet to be diagnosed. If such an individual attends for dental care, as with every patient it is important to take a thorough history, which includes presenting

complaint, past medical history, current medication, allergies, social history and family history.

A mental state examination is the tool used by psychiatrists to approach patients' symptoms and behaviour. A GDP is not necessarily equipped or trained to carry out a complete mental state examination but by understanding its components and what a psychiatrist assesses, an undiagnosed psychiatric illness may become apparent to the GDP. This should then trigger an appropriate referral. Furthermore, it may stop the GDP from initiating unwarranted treatment that may be requested as a result of underlying psychiatric illness rather than actual clinical need. The mental state examination has seven domains:

### Appearance and behaviour

This may be the first clue that something is amiss. Unkempt appearance can be associated with depression, alcohol dependence as well as schizophrenia. Colourful clothing may be a sign of elated mood in bipolar disorder. Facial expression, posture, restlessness, and dress code can all give clues to underlying illness.

### Speech

The manner in which one delivers speech can also give clues to underlying illness. Patients who are manic will have pressured speech whereby there is a

## KEY WORDS

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marked increase in rate. Conversely, a slow rate of speech can be a sign of depression.

### Affect

This is the short-term emotional state. It is normally reactive to events and conversation. Reduced reactivity is typical of depression and increased reactivity is associated with mania.

### Thoughts

When assessing speech, its content also needs to be considered. Delusions and obsessional thoughts may become apparent during a consultation. Furthermore, the form of thoughts can be assessed – is the thinking ordered? Is there a thought block? Is there flight of ideas?

### Perceptions

These may be experienced in any of the five senses. They can be divided into illusions whereby a real object is perceived inaccurately, or hallucinations whereby there is no real stimulus.

### Cognitive state

Testing cognitive state functioning involves testing orientation, attention, concentration and memory. Usually abnormalities would suggest organic brain pathology.

### Insight

This is an assessment of patient's recognition of the illness existing and if they are willing to receive treatment.

## Management of a patient with a suspected psychiatric illness

If a GDP suspects their patient has an undiagnosed psychiatric illness, they should proceed with the following steps as summarised in Figure 1.

The GDP should recheck the patient's past medical history to ensure that no illness has been missed. This can also

be done by contacting the patient's general medical practitioner (GP), after gaining appropriate consent from the patient. A thorough review of the patient's medication, ideally via a repeat prescription, is essential. This will alert the dentist to a patient who has a psychiatric illness but one who may be reluctant to reveal this. It would be vital to assess the patient's capacity by checking that the patient:

- 1 understands the information relevant to the decision to undertake treatment or not
- 2 retains the information they have been given
- 3 uses the information and weighs the pros and cons of their decision
- 4 communicates their decision back to the clinician.

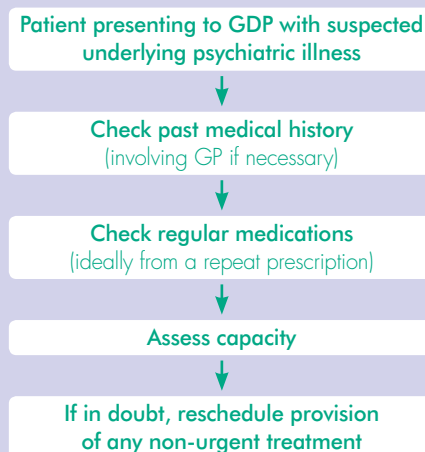
If the GDP is in doubt about management, it is best to defer any non-urgent treatment to a future appointment, which can then give the GDP time to gather further information. For the patient with unknown psychiatric diagnosis, it is imperative to determine if the patient is at imminent risk to themselves or others and hence need to be directed to the emergency department to be assessed by the on-call psychiatrist. In cases where the condition is not acute, the patient should be advised to see their GP and the GDP should consider contacting the GP to voice their concern.

## Psychiatric conditions affecting dental health and treatment

### Dental anxiety

Dental anxiety has a high prevalence with estimates of up to 90% of individuals experiencing anxious thoughts or worries before visiting the dentist.<sup>3</sup> Extreme anxiety whereby one avoids dental treatment may be considered as a phobia. Dental anxiety can lead to poor patient compliance as well as failure to communicate,

**FIGURE 1**  
**STEPS TO FOLLOW WHEN PSYCHIATRIC ILLNESS IS SUSPECTED**



which can lead to a downward spiral of deteriorating oral health. This is propagated by specific oral health behaviour of delaying seeking treatment or cancelling appointments.<sup>4</sup>

The GDP can help alleviate dental anxiety by recognising patients who are suffering from this. Good communication is key in reducing anxiety. Patients with specific fears such as needles and gagging may benefit from graded exposure.<sup>4</sup> In cases where this does not suffice, the GDP may need to use additional pharmacological aids such as oral, inhalation or intravenous sedation, and in severe cases general anaesthesia.<sup>4</sup> GDPs may also be able to enlist help from psychiatric colleagues who may be able to offer cognitive behavioural therapy.<sup>4</sup>

### Mood disorders

#### Depression

Patients suffering from depression can suffer from poor oral hygiene due to apathy.<sup>5</sup> Furthermore, the use of some of the medication utilised in the treatment of depression such as tricyclic antidepressants are known to cause xerostomia.<sup>5</sup> This combination can be detrimental to a patient's oral health, leading to an increased risk of caries. The GDP can initiate preventive measures such as fluoride administration to counteract the side effects of the medication.

### Bipolar disorder

Depressive episodes of bipolar disorder have similar impact on oral health as with depression, as outlined above. On the other hand, manic episodes can be associated with overzealous use of toothbrush or floss, leading to abrasion cavities and soft tissue injury.<sup>6</sup> The medication used for the treatment of bipolar can also result in severe xerostomia with its inherent problems, compounding the issue of deteriorating oral health. The other reported specific side effect of the bipolar medication lithium is lichenoid stomatitis and non-specific stomatitis.<sup>6</sup>

### Schizophrenia

The prevalence of schizophrenia is about 1%.<sup>7</sup> It is a type of psychosis that can result in hallucinations, delusions and disorganised thinking and speech. Patients with schizophrenia are less likely to seek routine dental care and are more likely to have poor oral hygiene.<sup>8</sup> This is more likely to be the case with patients who experience so called negative symptoms of schizophrenia (inactivity, social withdrawal, lack of energy, impaired thinking). Furthermore, patients suffering from schizophrenia may be on medications that can have negative side effects such as xerostomia.<sup>8</sup> This may be further exacerbated by overconsumption of carbonated drinks to help cope with xerostomia.<sup>8</sup> Some medications can lead to tardive dyskinesia causing patients to feel that dentures are ill-fitting and can also cause mouth ulceration.<sup>8</sup>

Patients with positive symptoms of schizophrenia may have delusions associated with teeth that can lead to them making abnormal requests for extractions or removal of amalgam restorations.<sup>3</sup> GDPs who receive such requests need to be open to the possibility of underlying mental health illness that may not have been diagnosed, and they should initiate an appropriate referral.

Finally, patients with psychiatric illness are more likely to smoke compared to mentally healthy individuals,<sup>7</sup> leading

to a higher risk of periodontal disease and risk of oral cancer.

### Eating disorders

Anorexia nervosa and bulimia nervosa are common psychiatric illnesses and the GDP is in a unique position to identify patients with such illnesses due to their oral manifestations.

Patients with these conditions present with typical pattern of dental erosion of the palatal and occlusal surfaces of the teeth due to vomiting. However, patients with bulimia nervosa consuming large amounts of acidic drinks also get initial erosion of the palatal and buccal surfaces of the teeth, making it indistinguishable from non bulimia nervosa patients who are simply consuming high amounts of carbonated drinks.<sup>9</sup> One study suggested that presence of incisal erosion associated with the presence of cervical lesions on the lingual aspect of the lower anterior dentition can be useful in discriminating those patients with intrinsic acid erosion, secondary to an eating disorder, as opposed to diet.<sup>10</sup> The subject of eating disorders can be brought up with the patient tactfully and the patient can be directed to the psychiatry services for further management.

Eating disorders are also known to have marked oral mucosal manifestations. This may be due to direct trauma to the palate and oropharynx in bulimia nervosa patients. Patients may have additional nutritional deficiencies leading to angular cheilitis, oral ulceration or glossitis.<sup>9</sup> Salivary gland swelling (sialadenosis) can be present in some patients with bulimia nervosa and there have been reported cases of necrotising sialometaplasia secondary to trauma to minor salivary glands.<sup>9</sup> In addition, some patients with bulimia may show calluses on the their knuckles or back of their hands due to repeated self-induced vomiting (Russell's sign).

### Alcohol and substance misuse

#### Methamphetamine

Methamphetamine is a very addictive

drug and can be smoked, snorted or injected.<sup>11</sup> It leads to xerostomia, which combined with the other behavioural effects of the drug leads to widespread decay. Patients addicted to methamphetamine are hyperactive and during times of acute drug use do not stop to eat and drink.<sup>11</sup> The choice of drink when suffering from xerostomia during acute drug use is usually caffeine rich, and sugary soft drinks.<sup>11</sup> This results in characteristic pattern of rampant caries with initial involvement of buccal and cervical surfaces of both maxillary and mandibular teeth.<sup>11</sup> These patients also exhibit accelerated tooth wear as a result of bruxism, which is a feature during active drug use.

GDPs treating patients who abuse methamphetamine should exhibit caution when using local anaesthetic (LA) with vasoconstrictor and LA without vasoconstrictor should be used.<sup>11</sup> Furthermore opioid analgesics should be avoided and fluoride administration in its various forms should be considered.<sup>11</sup> Sialogogues can also be beneficial.<sup>11</sup>

#### MDMA

In a similar fashion to methamphetamine, MDMA (commonly known as ecstasy) also leads to xerostomia, which is followed by excessive consumption of soft drinks to provide relief from xerostomia.<sup>12</sup> Jaw clenching and grinding of teeth have been reported during ecstasy use.<sup>12</sup> This combined with reduced salivary flow and excessive soft drink consumption can lead to excessive toothwear.<sup>12</sup> Ecstasy use has also been reported to cause mouth ulcers.<sup>12,21</sup>

The GDP should avoid use of adrenaline-containing local anaesthesia when treating patients who have recently consumed ecstasy.<sup>12</sup> Furthermore, preventive measures such as fluoride administration and provision of a soft splint will help counteract the effect of ecstasy on the dentition.<sup>12</sup>

#### Cannabis

Cannabis, commonly known as marijuana, is a drug that is usually

TABLE 1

## SUMMARY OF CLINICAL AND ORAL SYMPTOMS OF MENTAL DISORDERS AND THE MOST COMMON PSYCHOTROPIC MEDICATIONS

Condition	Clinical presentation suggestive of underlying illness	Commonly used medications	Oral manifestations
Dental anxiety	Worry, sense of dread, irritability, poor concentration, restlessness, dry mouth, shortness of breath, chest pain, palpitations, tachycardia, light headedness, weakness, tremor, sweating	<ul style="list-style-type: none"> <li>• Antidepressants (see below for types &amp; names)</li> <li>• Benzodiazepines: Diazepam, Oxazepam, Alprazolam, Temazepam, lorazepam, Clonazepam</li> <li>• Tranquilisers</li> <li>• Anticonvulsants: Gabapentin, Pregabalin</li> </ul>	Dry mouth Poor oral hygiene Neglected dentition
Depression	Lack of energy Feeling sad and hopeless Speaking slowly Problems with memory, concentration and decision making	<ul style="list-style-type: none"> <li>• Tricyclic antidepressants: Amitriptyline, Nortriptyline, Clomipramine, Trazodone</li> <li>• Selective serotonin reuptake inhibitors (SSRIs): Citalopram, Escitalopram, Fluoxetine, Paroxetine, Sertraline</li> <li>• Serotonin–norepinephrine reuptake inhibitors (SNRIs): Venlafaxine, Duloxetine</li> <li>• Monoamine-oxidase inhibitor (MAOI): Rasagiline, Selegiline</li> <li>• Other: Mirtazapine</li> </ul>	Dry mouth Poor oral hygiene Neglected dentition
Bipolar disorder	Restless Impulsive Pressured speech Easily distracted	Aripiprazole, Lamotrigine, Lithium, Olanzapine, Quetiapine, Risperidone, Valproate, Carbamazepine	Poor oral hygiene Overzealous use of oral hygiene aids Lichenoid stomatitis Non-specific stomatitis
Schizophrenia	Hallucinations, delusions and disorganised thinking and speech	Haloperidol, Chlorpromazine, Quetiapine, Clozapine, Olanzapine, Quetiapine, Risperidone	Dry mouth Oral ulceration secondary to tardive dyskinesia
Eating disorders	Low BMI Wearing loose bulky clothes to hide weight loss Preoccupation with food, dieting and counting calories Evidence of purging		Erosion of enamel Parotid gland swelling Russell's sign
Alcohol and substance abuse	Unkempt Heavy sweating Dilated pupils/constricted pupils Tremors	Methadone, Acamprosate, Disulfiram	Dry mouth – leading to characteristic pattern of caries – 'meth mouth' Tooth wear Dysplasia/oral squamous cell carcinoma Mouth ulcers

smoked. Patients who use cannabis are more likely to have poorer oral health than non-users.<sup>13</sup> As is common with other drugs, xerostomia is a known side effect and chronic use can increase the risk of caries.<sup>13</sup> Acidic erosion due to frequent vomiting following cannabis use can also occur.<sup>14</sup> Cannabis use can also result in neoplastic changes of the oral epithelium.<sup>13</sup>

As a GDP, care needs to be taken if administering local anaesthesia with adrenaline which can prolong tachycardia caused by an acute intake of cannabis.<sup>13</sup> Furthermore, when treating patients who have acutely used cannabis, the GDP needs to be aware that patients can experience acute anxiety as well paranoid thoughts.<sup>13</sup>

#### Methadone

Patients who are being rehabilitated from substance misuse may be given methadone. Although sugar-free preparations of methadone are available, the sugar-based version is most often used.<sup>15</sup> This can cause an increase in caries and the GDP can help give preventive advice to reduce such risk.

Smoking, alcohol, tobacco, betel leaf and areca nut

Smoking, alcohol, chewing tobacco as well as paan and betel nut lead to an increased risk of oral cancer, warranting a closer inspection of the oral mucosa during dental visit.

## Body dysmorphic disorder

Patients with body dysmorphic disorder have a preoccupation with a perceived flaw in appearance. This may lead them to pursue surgical and dental treatments to rectify this perceived flaw, which may lead to worsening of symptoms.<sup>2</sup> The GDP needs to be able to recognise and filter requests of justified cosmetic treatment from inappropriate requests from patients with underlying body dysmorphic disorder.

Table 1 summarises the clinical presentation of patients with psychiatric illness and the common medications that are taken as well as the oral manifestations of the illness and/or treatment.

## Dental conditions that are more likely to be associated with psychiatric illness

### Temporomandibular joint dysfunction

Temporomandibular joint dysfunction (TMD) has a multifactorial aetiology including psychosocial factors. Some studies show patients with TMD have higher associations with symptoms of common mental health disorders, such as depression and/or anxiety than the general population.<sup>16,17</sup> When patients present with symptoms of TMD it is important for the GDP to explore the possibility of underlying affective and anxiety disorders and, if suspected, suggest attendance with the GP.

### Facial pain

Atypical facial pain presents with pain in the facial region without any underlying organic pathology. Patients presenting with atypical facial pain will commonly have underlying psychiatric illness.<sup>18</sup>

### Burning mouth syndrome

Burning mouth syndrome (BMS) or oral dysaesthesia is used to describe the symptoms of burning sensation within the oral cavity in the absence of identifiable cause. In some of these

cases, secondary care referral to a liaison psychiatrist for consideration of underlying various comorbid states, such as depression, anxiety and post-traumatic stress disorder should be considered. Several research studies indicated that there is a relationship between the intensity of BMS symptoms and presence of psychiatric comorbidity as well as high prevalence of mental health disorders in BMS.<sup>19,20</sup> In severe cases, the multidisciplinary model of care should be considered.

## Conclusion

Psychiatric illnesses are common and the dentist will inevitably encounter patients with a psychiatric illness frequently. Understanding the oral manifestations of the illness and oral side effects of the treatment enables the GDP to provide optimal dental care to this subset of patients. In some conditions such as TMD, atypical facial pain and burning mouth, active involvement of a psychiatrist and clinical psychologist may be essential to ensure management of symptoms. Treatment plans need to be tailored to each individual with preventive care, including topical fluoride administration, and health promotion being an essential feature.

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