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Medically Unexplained Oral Symptoms

Abstract: Medically unexplained symptoms (MUS) are common in all areas of healthcare, and when the term is applied to oral symptoms, it can be appropriately focused as medically unexplained oral symptoms (MUOS). This article reviews the causes/associations and presentations of MUOS in dentistry, and describes confusable or possible comorbid psychiatric conditions. Management of patients with MUOS in primary dental care often requires close working with the patient's GP and other professionals. Strategies for the assessment and management of such patients are described.

CPD/Clinical Relevance: Dentists in primary care are likely to see patients with medically unexplained oral symptoms. A good knowledge of the correct identification and management of these symptoms is crucial for a satisfactory outcome. A proficiency in assessing and managing MUOS patients is an important skill for all primary care dentists.

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Medically unexplained symptoms (MUS) occur commonly in patients attending all areas of healthcare. In simplest terms, they are symptoms that cannot be ascribed to a known disorder, or an explanatory physical disorder cannot be found. The range of such possible symptoms is large

and examples include fatigue, chest, muscle and back pain, palpitations, breathlessness, cough, dyspepsia, feeling faint, diarrhoea, weakness, sensory disturbance, dysuria and urinary frequency. All of these symptoms are commonly caused by recognized disease, also there are links between general health and MUS as discussed later. Those symptoms pertaining to the mouth can be described as medically unexplained oral symptoms (MUOS). The terminology in this paper reflects that MUOS is used to refer specifically to MUS in the mouth, whereas the term MUS refers to non-oral problems or the broad concept. Some entities, for example chronic fatigue and irritable bowel syndromes, fibromyalgia and non-epileptic attack disorder, have long been, and still are by many authors, considered to be MUS. However, pathophysiological mechanisms are now being elucidated for these disorders. Irritable bowel syndrome has been deemed to be explainable, and thus should not be considered to be MUS.¹

Over the years many oral symptoms have been classified as MUS, including some pain disorders, some instances of disturbance to taste or sensation, perceptions of abnormal

occlusion and excessive or altered saliva among others. Many of these are now readily explainable, as discussed in later.

There are some difficulties with terminology in this area² and MUS have been variously termed 'psychosomatic', 'psychogenic', 'hysteria' and 'supra-tentorial'. Some of these terms can reflect, or imply, a prejudicial or pejorative view that has been present among some clinicians, and passed down to generations of trainees in a form of 'hidden curriculum'.³ Such views have surely negatively impacted upon the clinical care of patients with MUS. The terms 'medically unexplained symptoms', 'persistent physical symptoms' or 'functional disorders' are currently preferred, although these are descriptive umbrella terms, not a diagnosis. However, it is suggested it 'is not so much the precise terminology but the overall attitude of the doctor that matters'.⁴

MUS can be difficult for clinicians and patients alike. Medical and dental teaching rests on diagnosing, and then managing a specific disease, whereas MUS are much more uncertain. MUS are very closely linked with psychological factors, which clinicians may have less experience in exploring

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and managing. Some clinicians may have preconceived or distorted ideas about patients with persistent MUS, or see them as 'difficult'⁵ or time-consuming, and not lend the same degree of legitimacy to the problem as a defined organic disease. The absence of a cause, or explanation, can be disconcerting for clinicians, frustrating and lead to worries of missed pathology. Patients may also be frustrated by lack of a cause or explanation, or the insinuation that it is 'all in the mind,' or they are malingering.

The concept of MUS occupies much greater recognition in medical fields than in dentistry. In particular, much has been written about the management of patients with MUS by general medical practitioners (GPs) working in primary care, including specific guidelines.⁶ The specific terms MUS or MUOS are seldom seen in the dental literature, although much has been written previously referring to specific named oral syndromes then believed to be unexplained, for example atypical facial pain, which are not now considered to be MUOS.

This clinically focused article explores issues around the assessment and management of MUOS patients in primary dental care. The aim is not to provide a guide to investigation or management of specific symptoms, or how to 'diagnose' MUOS, but is rather to gain a general understanding of MUOS so that such patients can be managed effectively in primary dental care. The paper will explore:

- The terminology around MUOS and related psychiatric conditions;
- Causes/associations of MUOS;
- Presentations of MUOS in dentistry;
- General principles of investigation, diagnosis and prognosis of MUS;
- Management of MUOS in primary dental care and linking with other professionals.

How common are medically unexplained symptoms?

MUS are extremely common, with reportedly around 80% of people experiencing them in any given week,⁷ although most will not seek medical attention. A systematic review of 996 studies found the point prevalence of at least one MUS in patients attending GPs to be 40.2%.⁸ A Danish study of consultations on a randomly chosen day classified 36% of reported symptoms as unexplained, with 50% expected by the GPs to remain so. The

consultations with MUS patients were also felt to be more demanding.⁹ In specialist practice, up to 40% of ENT outpatient consultations relate to MUS,⁷ and in rheumatology, 20% had symptoms 'somewhat explained' and 8% 'not at all explained' by organic disease.¹⁰ MUS, therefore, constitute a large proportion of the clinical workload in both primary and secondary care, and are, in fact, the most common problem in some specialties with up to 50% of patient symptoms still unexplained at 3 months.¹¹ A recent estimate placed the total cost of managing MUS at 10% of National Health Service expenditure on the working age population.¹² The number of patients attending primary dental care with MUOS has not been well studied, and comparable figures are not available.

Causes/associations

MUS have been considered to arise due to predisposing, precipitating and maintaining factors¹³ and a number of causation models have been proposed. Genetic and environmental factors (eg early experiences of adversity, experience of parental ill health and self illness behaviours as a child) are postulated to predispose to MUS.^{14,15} Other associated factors are high levels of health anxiety, reassurance-seeking behaviour, recent adverse life events and female gender.¹⁶ There is a relationship between MUS in adults and their children.¹⁷ Difficult or stressful events can then precipitate MUS: they are strongly linked with depression and anxiety.¹⁸ MUS are substantially higher among those on sick leave from work versus those in work.¹⁹ Many of these factors can also perpetuate symptoms. Social, cultural and societal influences are also important, because the incidence of different MUS varies widely between different groups and cultures.¹³

Related/confusable psychiatric conditions

It is clear that a significant proportion of patients suffer with a comorbid psychiatric disorder. Several psychiatric conditions have non-organic somatic symptoms as a core element and, therefore, provide a psychiatric explanation for symptoms that appear unexplained. Psychiatric assessment is generally needed to make many of these diagnoses, and clearly, it falls outside the remit of dentists and often of GPs. Nevertheless, such entities should be borne in mind and

appropriate onward referral arranged if a psychiatric condition is suspected.

These psychiatric disorders, and the criteria for diagnosis, are clearly defined within two documents, each providing an alternative classification system – the International Classification of Diseases²⁰ and Diagnostic and Statistical Manual of Mental Disorders.²¹ In both cases, the content of previous editions was criticized and has been updated. Diagnostic entities and definitions of psychiatric conditions that overlap with/ include MUS have, therefore, changed somewhat over the past few decades.

Both depression and anxiety (closely linked conditions that often co-exist) are known to be significantly more prevalent among those with MUS compared to both those with no symptoms at all, and those with explained physical symptoms.¹⁸ Somatic symptoms are common in these conditions. In depression, early morning wakening, loss of appetite and libido, weight loss and agitation/retardation may occur. In anxiety, a wide range of symptoms including palpitations, sweating, a 'lump in the throat,' nausea, dizziness, muscle aches, and many others can occur. These somatic symptoms (rather than low mood) are often the primary presenting complaint when attending a clinician and thus, it is particularly important for these diagnoses to be considered.²

The conditions, previously called somatization disorder and somatoform pain disorder, are now termed either bodily distress disorder²⁰ or somatic symptom disorder.²¹ The small subgroup of patients who have these disorders is distinguished from other MUS patients largely by the degree of distress, excessive attention given to, and persistence of, the symptoms, lack of response to reassurance, and degree of interference with daily life, work and social functioning. The International Classification of Diseases 11th Revision (ICD-11) describes the broad category of 'bodily distress disorder,' which 'is characterized by the presence of bodily symptoms that are distressing to the individual and excessive attention directed toward the symptoms, which may be manifest by repeated contact with healthcare providers. If another health condition is causing or contributing to the symptoms, the degree of attention is clearly excessive in relation to its nature and progression. Excessive attention is not alleviated by appropriate

clinical examination and investigations and appropriate reassurance. Bodily symptoms are persistent, being present on most days for at least several months. Typically, bodily distress disorder involves multiple bodily symptoms that may vary over time. Occasionally there is a single symptom—usually pain or fatigue—that is associated with the other features of the disorder.²⁰ The Diagnostic and Statistical Manual of Mental Disorders 5th edition (DSM-V) employs a slightly different terminology and defines 'somatic symptom disorder' as the presence of one or more somatic symptoms, significantly disrupting daily life and eliciting disproportionate and persistent anxiety, to which excessive time and energy are devoted. The duration is typically longer than 6 months.²¹ The requirement for the lack of a medical explanation, which was a criticism of previous editions, has been removed.

Conversion/dissociative disorders occupy a status of confusing terminology, and, in the past, have been largely interchangeable terms. Dissociative disorder is defined as 'the presentation of motor, sensory, or cognitive symptoms that imply an involuntary discontinuity in the normal integration of motor, sensory, or cognitive functions and are not consistent with a recognized disease of the nervous system, other mental or behavioural disorder, or other health condition'.²⁰ Symptoms can include paralysis, loss of speech, sensory changes, seizures and amnesia, may occur suddenly and be apparently triggered by a traumatic life event. They often represent the patient's perception of how a particular illness should present, thus, for example, an apparent stroke, but with sensory and motor changes inconsistent with stroke pathology. Conversion disorder is not included in ICD-11, whereas in DSM-V conversion and dissociative disorders are listed as separate entities.²¹

Adjustment disorder is a reaction to a psychosocial stressor causing significant and recurrent worry and impairment of functioning, which generally resolves within 6 months. Somatic symptoms, such as loss of appetite, sleep disturbance and fatigue, often occur. In one series it was the third most common psychiatric comorbidity in MUS patients after depression and anxiety.²²

Hypochondriasis and factitious disorder are both defined in ICD-11 only, and in DSM-V come largely under the umbrella of

somatic symptom disorder. Hypochondriasis is a non-intentional belief of having an illness, despite negative test results and appropriate reassurance. The patient ruminates on this possibility and seeks medical attention regarding normal bodily functions, variants or insignificant minor ailments interpreted as a reflection of a serious underlying problem. This pre-occupation is typically in the form of an over-valued idea, but can be of an intensity to constitute a delusion and thus, a psychosis. There may be insight into the pre-occupation, although this does not stop the process.

Personality disorder is defined as an enduring disturbance of functioning of the self and/or interpersonal dysfunction with maladaptive cognitive, emotional and behavioural patterns manifesting across a range of personal and social situations.² Formerly, 10 subtypes were distinguished, whereas now, it is simply graded as mild, moderate or severe, with or without one or more prominent trait qualifiers. Around 12% of the general population has a diagnosable personality disorder²³ and in those, the prevalence of psychiatric comorbidity is high. Co-prevalence of personality disorder and MUS is high.²⁴

Post-traumatic stress disorder (PTSD) is a disorder that can follow exposure to an extremely threatening or horrific event, characterized by re-experiencing the event, avoidance of thoughts/memories of the event and persistent perception of heightened threat.²⁰ PTSD is strongly linked with increased incidence of MUS (and physical medical conditions).²⁵

Factitious disorder is the intentional fabrication of illness, either physical or psychological, without clear gain (thus distinguishing it from malingering or drug-seeking behaviour). This can be via induced or exaggerated signs or symptoms, deliberate non-compliance with treatment, interference with specimens, tests or wounds, or falsification of records. Formerly known as Munchausen syndrome, a 'by proxy' variant exists whereby illness is induced or prolonged in a dependent, thus introducing significant safeguarding concerns. It is significantly linked with certain personality disorder types, and has been recently reviewed in a dental context.²⁶

Rarely, a somatic delusion, as part of a range of delusional disorders including forms of schizophrenia, can manifest as, or include, oral symptoms. One particular example is 'oral cenesthopathy' – a delusional belief in the

presence of an abnormal or strange body sensation, particularly an oral foreign body. This term is rarely used in the psychiatric literature and has received limited study in dentistry.²⁷

Why do primary care dentists need to know about MUS and MUOS?

It is recognized from studies of medical patients that the majority with MUS can be managed in primary care.¹³ The same could be true in primary dental care, but has never been adequately studied. Dentists may have patients presenting to them, as the first practitioner consulted, with MUOS. Managing these cases correctly from the earliest stage is crucial for a successful outcome. In some cases, the dentist will be able to determine the lack of cause and, therefore, presence of MUOS – in others patients may need evaluation by their GP or a hospital specialist. Certainly, dentists will see patients with MUS in other systems on a very regular basis.

Which MUOS are likely to be seen in dentistry?

Within the literature there is some disagreement on precisely what orofacial symptoms can be classified as MUOS, and some are no longer considered unexplained as research has provided a causal mechanism.

Chronic orofacial pain, as encompassing atypical facial pain, atypical odontalgia and burning mouth syndrome, has been considered MUOS by some authors.²⁸⁻³⁰ However, this is now an outdated view because these pain syndromes are readily explainable through the proven pathophysiological mechanism of peripheral and central sensitization. This has been defined as 'an amplification of neural signalling within the central nervous system (CNS) that elicits pain hypersensitivity'.³¹ Neurophysiological changes in neurones in the CNS lead to increased spontaneous neural activity, reduced activation threshold, increased synapse efficiency, reduced activity of inhibitory circuits and convergence of inputs from pain and non-pain sensory fibres. These neurophysiological changes, in practical terms, produce an autonomous and longer lasting perception of pain from a smaller (previously non-noxious) stimulus.³¹ All of the aforementioned pain syndromes, as well as temporomandibular disorder and

phantom tooth pain, are now explainable in this way.³² Ways of explaining these symptoms to patients are discussed later.

Phantom bite syndrome, also termed occlusal dysaesthesia, has also been classed as MUOS.³⁰ Other authors, however, assert it to be a form of psychosis where a delusional belief is held of a problem with the bite (which is not improved by occlusal modification).³³ A further proposed explanation is of 'dysproprioception,' sometimes iatrogenic after dental treatment, and thus, an enhanced awareness of a change in occlusion.³⁴ Therefore, this syndrome should not be classified as MUOS.

No comprehensive study of all possible MUOS seen in dental primary care has yet been conducted, and reliable data on the prevalence of these symptoms in dentistry are not available. The exact symptoms that could occur have been poorly defined, although it is likely a wide range of MUOS occur, in common with the breadth of MUS across all other body systems.

How much investigation/testing should be done if MUS are suspected?

Where a clinician suspects MUS, deciding how far to investigate can be problematic. Clearly the risk of missing organic pathology is a concern, particularly disorders that are rare, vague or non-specific in their presentation. Among MUS patients, studies from the 1960s and 1970s reported very high rates of missed organic pathology of up to 40%; however, a more recent review put this figure at 4%.³⁵ A 19-month follow-up of 1095 patients diagnosed with MUS in a neurology service recorded only four cases (0.4%) where organic pathology was subsequently diagnosed and explained the original symptoms.³⁶ While the usual concern is missing organic pathology, actually misdiagnosing MUS as organic pathology is much more common.³⁷ Furthermore, clinicians were more likely to make diagnoses of organic pathology, later revised to MUS, in patients who were older, in employment, not receiving other therapies and when the clinician was satisfied with the consultation.³⁷

Therefore, there is a balance between extensive tests for organic pathology and rational use of resources. There is no doubt that over-investigation can cause iatrogenic harm.^{2,13,38} Besides discomfort from the test

itself, this includes direct risks as in diagnostic endoscopy, radiation exposure in X-ray-based tests, yielding of incidental findings leading to further tests/procedures and false positives, which can all generate further anxiety, harm and reinforce 'illness behaviour'.² The degree of investigation pursued is, in fact, more related to the clinician's response to the patient's symptoms than the patient's ideas about the problem or demands.³⁹ Undertaking investigations 'for reassurance' is an often-quoted idea. A meta-analysis found investigations into symptoms with low risk of serious underlying illness did not provide significant reassurance, reduce anxiety or resolve symptoms, although subsequent primary care visits were slightly reduced.⁴⁰

Therefore, although many cases will require detailed investigations, it is not essential to exhaustively investigate in every case and exclude all possible organic diagnoses before reaching a conclusion of MUS. As above, there are negatives to investigations, and these must be balanced against the probability of yielding useful findings. With an index of suspicion, MUS can often be suspected from an early stage. Distinguishing these cases is a matter of clinical skill and experience. In these cases, where suspicion of MUS is high, it is not unreasonable to prudently investigate, but if initial tests are negative, then any further tests should be carefully planned to balance excluding organic pathology with the adverse effects of the tests, and with clear explanation to the patient as detailed below.

Assessment in primary dental care

When medically unexplained symptoms are suspected during a dental consultation, the following considerations may be useful during the assessment.

- Take a history and evaluate the patient's complaints. Symptoms should be taken at face value regardless of cause – take the patient's concerns seriously and do not dismiss symptoms. Exploring the presenting complaint and its history will help to elicit features or red flags suggestive of serious disease. Often MUOS can be suspected at an early stage, and the consultation directed appropriately based on this. A careful history in itself, with supportive listening, can have therapeutic

effects.⁴¹ Identifying the potential for MUOS early is helpful, so the consultation can be shaped appropriately.¹³ The focus at that point should be on the impact of symptoms rather than searching for diagnoses.

- Explore the patient's ideas, concerns and expectations. What (specifically) do they think is wrong and why did they seek a consultation? What treatment do they think they need to improve the situation? Patients with MUS often want more emotional support than other patients and tend to be happy to discuss their psychological symptoms with the clinician.⁴¹
- Build patient–clinician rapport. Expert opinion stresses the importance of generic intervention with a good doctor–patient relationship and good communication.⁴² Consultations with MUS patients delivered in a positive manner led to higher satisfaction, and higher chance of getting better, regardless of whether any treatment was actually provided.⁴³ A focused, empathetic, warm, patient-centred relationship with continuity of care is recommended as the ideal general approach,⁴⁴ all of which are core values of both general medical and general dental practice.
- Physical examination. A brief, focused examination is important at each visit. Without it, it is less likely any reassurance will be accepted.⁴⁵ Many patients will appreciate the thoroughness and skill of a physical examination, which can be used as an opportunity to demonstrate normal findings and provide an explanatory commentary that can itself have therapeutic effects.⁴
- Consider underlying anxiety/depression or other psychiatric conditions. This is emphasized in guidance to GPs, since the prevalence of depression/anxiety is so high in those with MUS and depression/anxiety often presents with somatic (rather than psychological) symptoms.² Also, the outcome is poorer if MUS and mood disorders co-exist.¹⁸ A failure to suspect or recognize psychiatric comorbidity could impair prognosis and quality of life. Management in such cases is discussed below.
- Plan investigations. Information gathering by checking old notes and

previous test results is sensible before embarking on further investigations. It may be necessary to liaise with the patient's GP to find details of previous tests, hospital referrals etc (see next section for more detailed discussion). Once deciding on a test, explain what a normal result means, and what would happen if the result is normal but the symptoms persist.² Share uncertainty with the patient, and convey the thought that a cause may not be found.⁴⁶ The patient can then be reviewed later as appropriate after information gathering.

Management in primary dental care

Once it has been established that the symptoms of a patient in primary dental care are medically unexplained, likely to be following tests, information gathering and further consultations and reviews, the following management advice may be useful.

- Explanation and reassurance. Provision of reassurance that further investigations or treatments are not necessary is not straightforward.⁴⁷ It is important to acknowledge that the patient's symptoms are real and causing distress, and that we can help with that distress and improve their function. Simple reassurance with normalization ('nothing is wrong') and inadequate explanation is ineffective and can exacerbate symptoms^{41,48} and increase dependence on doctors.⁴⁷ Successful reassurance requires a tangible (usually physical) explanation that the patient can understand, and frees them from blame. The reassurance must address the specific concerns the patient has, for example, that they have cancer.² Explanations that emphasize the physical and psychological components of symptoms, that is symptoms can be both physical and psychological, can be helpful.⁴¹ Being positive is strongly associated with improvement in symptoms⁴⁹ although false or unrealistic reassurance should be avoided.¹³
- Focus on managing symptoms, not seeking a cure. The patient should be asked whether they have any questions and given written information, if appropriate.¹³ One option is to direct patients to the MUS page of the Royal

College of Psychiatrists website, or provide their patient information leaflet in hard copy (see Box 1). Neurosymptoms.org is also an excellent website for providing patient information on some MUS.

- Lifestyle advice. Advice from the Royal College of Psychiatrists includes maintenance of a healthy diet, regular sleep pattern and regular exercise.⁵⁰
- Input from the patient's GP. For the dentist, close working with the patient's GP will be essential for many patients with MUOS. Working with GPs in the management of patients with suspected psychiatric conditions is discussed separately below. GPs are highly trained in the management of MUS and deal with such complaints on a very regular basis. Evidence suggests that GPs are much more comfortable than dentists in managing MUS patients, and much more ready to use psychological techniques.²⁹ They have access to other specialties and services that dentists do not, will have details of the patient's full history stretching back years, potentially with important social and medical factors and previous presentations/hospital attendances. All of this can be highly informative in the evaluation of MUS, and places the GP at a significant advantage compared to the dentist in that respect. However, poor lines of communication and uncertainty over each other's roles can hinder collaborative working between dentists and GPs, which acts as a disservice to MUS patients.
- If underlying psychiatric conditions are suspected. In most such cases, the primary option is to advise the patient to discuss this with their GP. The vast majority of mental health problems are managed in primary care by GPs,⁵¹ so this route directs patients from primary dental care into this existing mainstream care setting. It would be sensible to formalize this with a written letter sent by the dentist to the GP, if the patient consents, outlining their concerns and communicating that they have advised the patient to attend. Such an approach would be equally amenable in both NHS and private practice. Although a dentist who undertook this action in the UK would not be directly remunerated, it is an important element of holistic care. In some cases, primarily where a milder form of depression or anxiety is suspected, the patient could be signposted to self-refer to

Resources for patients

- Useful patient information leaflet from Royal College of Psychiatrists at www.rcpsych.ac.uk/mental-health/problems-disorders/medically-unexplained-symptoms?searchTerms=medically%20unexplained%20symptoms
- Neurosymptoms.org: an excellent patient website on functional neurological disorders

Box 1.

local mental health services, if possible locally. These services are delivered in most areas by IAPT (Improving Access to Psychological Therapies) teams, and can be accessed directly by patients without clinician referral. However, it is anticipated that the majority of cases where a psychiatric condition is suspected in a primary care dentistry setting will require medical assessment via the GP as the first initiated step. Discussions with patients about such referral is best approached cautiously, because it can be misinterpreted as them not being believed or taken seriously.^{2,13} One strategy is to suggest, 'we cannot cure your symptoms but need to help you find a way you can live with them'.⁵²

For patients with an underlying an psychiatric condition and referred to the GP, the following broad management strategies exist.

- Psychological therapies may be useful. A beneficial effect has been shown for cognitive behavioural therapy (CBT), relaxation response, mindfulness, meditation, group therapy and brief dynamic psychotherapy for MUS patients, to varying extents and reproducibility.⁴¹ These forms of psychological therapy are available by referral from GPs or hospital doctors, and are be accessible to patients in many areas via self-referral to IAPT teams as previously described.
- Antidepressants are useful in MUS patients with anxiety/depression, including those with depressive symptoms not severe enough to meet criteria as diagnosable depression. These medications work by improving mood and reducing pain severity, with lesser

effects on other somatic symptoms.⁴¹ These drugs are outside the remit of dentists and would require the input of GPs.

- Input from a psychiatrist may uncommonly be required in those cases where a severe or complex underlying psychiatric condition is suspected. More complex patients can also be managed by liaison psychiatry and community mental health teams. Less severe psychiatric problems can be assessed and managed by either GPs, health psychologists or IAPT services.

Prognosis

MUS improve in 50–75% of patients and deteriorate in 10–30% over a period of 6–15 months, and those with worse baseline symptoms have a worse prognosis.⁵³ Of those patients consulting primary care, 25% still have symptoms at 1 year.⁵⁴ A 3-year study in the Netherlands found 36.4% of patients with MUS had persistent symptoms,⁵⁵ with parental psychopathology, increased medical comorbidities and reduced physical function being predictive of persistence

Various factors indicate a worse prognosis for MUS: the number, duration and frequency of symptoms, and involvement of multiple systems. Presence of mental illness is a weak prognostic factor. Psychological factors, such as negative illness perceptions, illness worry, maladaptive coping, catastrophizing, negative affect and childhood abuse, are also associated with a worse prognosis.⁵⁶

Conclusions

MUS are common in all areas of healthcare, and are likely to be common within patients presenting to dentists in primary care also. There are a number of reasons why managing patients with MUS can be challenging, but a good amount of clear guidance exists (aimed primarily at GPs) for such cases. Much of this is directly translatable from primary medical into primary dental care, where the majority of dentists work. Often, it can be suspected at an early stage that a symptom will not be explainable, and in such cases, judging how much

investigation to perform can be difficult, although the risk of concluding MUS and missing organic pathology is low. Dentists have a role in the initial assessment and long-term care of such patients, but are likely to need to work closely with the patient's GP, and occasionally hospital specialists.

Compliance with Ethical Standards

Conflict of Interest: The authors declare that they have no conflict of interest.
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The advertisement features a large, close-up image of a green TePe interdental brush with the brand name embossed on its handle. In the top left corner is the TePe logo, and in the top right corner is the Swedish flag with the text 'Made in Sweden'. A green leaf icon in the bottom left corner states '80% less CO₂'. Below this is a smaller image of the product's retail packaging. The main text is centered and reads 'Details that make all the difference', followed by a paragraph about the product's sustainability and dental hygiene benefits. At the bottom, there is a website link and a source note.

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*Source: A survey of 201 dental hygienists in the UK, Ipsos (2019)