Temporomandibular disorders: Do we finally have a consensus standard of care for dissemination?

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In an attempt to solve the potential confusion around the temporomandibular disorders (TMDs) practice, a group of expert researchers and clinicians, on behalf of the International Network for Orofacial Pain and Related Disorders Methodology of the International Association for Dental, Oral, and Craniofacial Research, developed a consensus document on the standards of care for TMD management. The document is a list of 10 key points that include 3 statements on general concepts and etiology, 3 on diagnosis, 3 on treatment, and 1 on cautionary and conclusive remarks for the patient. The key points have the potential to assist both general and specialist dental practitioners to advance their understanding and facilitate the provision of conservative and appropriate treatment. Indeed, when it comes to pain, we need to look beyond the teeth. Decades of research in pain physiology, chronicity, genetics, and comorbidity, to name a few, have allowed a better appreciation of the complexities associated with one's TMD-related pain experience. Technical interventions, whether dental or surgical, typically play only a minor role in the broader management of any TMD pain. The paradigm shift from a dental to a medical model of disease has been well embraced and supported by the global community of orofacial pain specialists who are formally trained and who have been consistently applying these principles in line with established evidence-based clinical practices for years. This information is now available to everyone. (Am J Orthod Dentofacial Orthop 2026;169:8-11)

The field of temporomandibular disorders (TMD) has long been a subject of debate. Despite decades of research from the scientific community aimed at providing clinicians with clear, evidence-based guidelines, the discipline remains confused and divided. To approach patients with TMD, some dental professionals continue to primarily focus on the technicalities surrounding the analysis and correction of dental occlusion, often in opposition to orofacial pain specialists who support embracing the biopsychosocial model of pain management.[1] Given the significant misinformation that exists, there is great potential for inaccurate diagnoses and unnecessary and invasive treatments. As a result, patients are highly vulnerable to being diagnosed and managed outside the framework of an evidence-based medical and dental model of care.[2-4]

In the attempt to solve so much of this confusion, a group of expert researchers and clinicians on behalf of the International Network for Orofacial Pain and Related Disorders Methodology (INfORM) group of the International Association for Dental, Oral and Craniofacial Research (IADR) developed a consensus document on the standards of care for TMD.[5] This was the first formal scientific effort to address this topic since the American Association for Dental Research Science Information Statement of 2010. With the goal of reaching the largest possible audience according to the principles of open science, this document is available as an open-access paper (see the following link: https://www.tandfonline.com/doi/full/10.1080/08869634.2024.2405298?src=exp-la).

The strategy to prepare this document involved several exchanges and online meetings, which culminated in an open working group discussion held at

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the IADR General Session in New Orleans (March 2024), in which members of the INfORM network finalized the proposal of a list of 10 key points that represent a summary of the current standard of care for TMD management. The list includes 3 statements on general concepts and etiology, 3 on diagnosis, 3 on treatment, and 1 on cautionary conclusive remarks for patient referral:

1. Patient-centered decision-making alongside patient engagement and perspective is critical to manage TMD, with management being the process from history through examination into diagnosis and then treatment. Expectations should focus on learning to control and manage the symptoms and decrease their impact on the patient's everyday life.
2. TMD is a group of conditions that may cause signs and symptoms, such as orofacial pain and dysfunction of a musculoskeletal origin.
3. The etiology of TMD is biopsychosocial and multifactorial.
4. Diagnosis of TMD is based on standardized and validated history taking and clinical assessment performed by a trained examiner and led by the patient's perspective.
5. Imaging has been proven to have utility in selected instances, but does not replace the need for careful execution of history taking and clinical examination. Magnetic resonance imaging is the current standard of care for soft tissues, and cone-beam computed tomography for bone. Imaging should only be performed when it has the potential to affect the diagnosis or treatment. Timing of imaging is important, and so is the cost-to-benefit-to-risk balance.
6. The evidence base for all interventions or devices should be carefully considered before their implementation, over and above the normal standard of care. Knowledge on developments in the field should be kept up to date. Currently, technological devices to measure electromyographic activity at chairside, to track jaw motion, or to assess body sway, among others, are not supported.
7. TMD treatment should aim to reduce the impact of pain and decrease functional limitation. Outcomes should also be evaluated in relation to the reduction of exacerbations, education in how to manage exacerbations, and improvement in quality of life.
8. TMD treatment should primarily be based on encouraging supported self-management and conservative approaches, such as cognitive-behavioral treatments and physiotherapy. Second-line treatment to support self-management includes provisional, interim, and time-limited use of oral appliances. Only very infrequently, and in very selected instances, are surgical interventions indicated.
9. Irreversible restorative treatment or adjustments to the occlusion or condylar position are not indicated in the management of most TMD. The exception to this may be an acute change in the occlusion, such as in the instance of a high filling or crown, with TMD-like symptoms developing immediately after these procedures, or a slowly progressing change in dental occlusion because of condylar diseases.
10. The presence of complex clinical presentations with uncertain prognosis, such as in the case of concurrent widespread pain or comorbidities, elements of central sensitization, long-lasting pain, or a history of previous failed interventions, should lead to the suspicion of chronification of TMD or non-TMD pain. Referral to an appropriate specialist is thus recommended; the specialty will be geographic-specific, as not all countries have a specialty of orofacial pain.

The key points, in their simplicity, summarize concepts that are well recognized by orofacial pain specialists for some time now. They have the potential to assist both general and specialist dental practitioners to advance their understanding and facilitate the provision of conservative and appropriate treatment. This summary can be viewed as a guiding template for other national and international associations to prepare documents for guidelines and recommendations on the management of TMD. Such documents can be adapted to the different cultural, social, educational, and health care requirements in various countries around the world.

The value of having such a reference is already well established and widely acknowledged in both the dental and medical communities, with numerous translations and editorial announcements reinforcing its significance.[6,7] A consensus standard of care for dissemination has finally been achieved! This represents a critical milestone, enabling dental practitioners involved in the screening and basic practice of TMD to better service their patients.[8] Although calls to enhance our education[9] and adopt a medical approach to pain management may seem exaggerated to some, orofacial pain specialists understand they are not.[10] The global burden of orofacial pains, from a psychological, social, and financial perspective, remains too high for the average patient.[11]

It is better accepted today that the model of contemporary TMD diagnosis and management has moved from a mechanical dental-based approach to a medical and biopsychosocial approach. Although attaining an ideal occlusion is within the expertise of an orthodontist, we do not focus on the minutiae of occlusion and condylar position when it comes to the assessment, diagnosis, and treatment of TMD.[12] This traditional view is now outdated, as it fails to integrate the numerous biological, psychological, and behavioral factors that may account for the onset, maintenance, and remission of TMD. The evidence-based literature has shown that orthodontics is generally considered TMD-neutral, in that it neither causes nor cures TMD.[12,13] This does not dismantle the role of the good orthodontist (or prosthodontist) to warrant orthopedic stability in maximum intercuspidation as an important target for a good stomatognathic function.[14,15]

When it comes to pain, we need to look beyond the teeth. Decades of research in pain physiology, chronicity, genetics, and comorbidity, to name a few, have allowed a better appreciation of the complexities associated with one's TMD-related pain experience. A better discrimination between the different arthrogenous and myogenous symptoms, assessed in combination with the psychosocial axis, may be useful for any future refinement studies on this topic. However, technical interventions, whether dental or surgical, typically play only a minor role in the broader management of any TMD pain. The role of temporomandibular joint surgery itself has been reconceptualized. Indeed, surgical approaches to the temporomandibular joint are more appropriately reserved for specific conditions with clear indications, such as trauma, tumors, ankylosis, intraarticular loose bodies, developmental anomalies, or degenerative joint diseases, as opposed to their classical adoption as a response to failed nonsurgical pain management strategies.[16]

In the absence of systemic conditions, we now know that most of TMD symptoms are due to an imbalance between the resilience of the muscle, tendon, and joint structures (an individual's adaptive capacity) and the exerted load, mostly in the form of prolonged bracing or clenching and related isometric muscle contractions leading to tissue breakdown. Recent findings to understand awake bruxism have contributed to highlighting and strengthening our understanding of the interaction between psychological factors, bruxism, and orofacial musculoskeletal pains.[17] Certain psychological profiles appear to be a key predisposing factor for mandibular bracing and potential TMD-related dysfunction.[18] These insights will no doubt form the basis for enhancing patient care in the near future. They will also help further clarify the role of oral appliances, which are generally recommended for use as short-term crutches, but are also potentially helpful for longer terms in some patients.[19,20]

In conclusion, it is important to highlight that the INfORM/IADR group conceptualized and developed these key points to inform clinicians about the current evidence for standard of care when it comes to TMD management. They have been well embraced and supported by the global community of orofacial pain specialists who are formally trained and who have been consistently applying these principles in line with established evidence-based clinical practices for years. This information is now available to everyone.

Do we finally have a consensus standard of care for dissemination? Yes, we are certainly heading in the right direction with an evidence-based starting point!

AUTHOR CREDIT STATEMENT

Daniele Manfredini contributed to conceptualization and writing - original draft; Sanjivan Kandasamy contributed to writing - review & editing.

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