



## "Putting the Mouth into Health"— An Underpinning Requirement for Optimal Pain Management

In many countries around the world, there is a lack of integration of orofacial health and systemic health across multiple domains, including clinical management, training, enabling information technology systems, and funding. This is unfortunate, particularly when one considers that the orofacial region is integral to overall wellbeing. Take, for example, its role in social interactions, where orofacial structures play a major role in human communication, emotional expression, and intimacy. Furthermore, the orofacial region is home to the special senses that connect us to our surroundings, allowing us to respond to stimuli appropriately. Nevertheless, the orofacial health–systemic health disconnect is prevalent. This is exemplified frequently in the management of orofacial pain, despite clear evidence over the past 40 years for the integrated biopsychosocial conceptualization of pain. This concept expands on the biomedical model with the addition of social, psychologic, and behavioral dimensions of illness. Other more recent evidence demonstrates that some orofacial pains may be part of a more widespread pain condition or associated with overlapping pain conditions. These all point to the need to “put the mouth into health” when we are confronted with managing a chronic pain patient or undertaking research in such populations.

The orofacial pain research field was an early adopter of the biopsychosocial model, when in 1992 the landmark Research Diagnostic Criteria for Temporomandibular Disorders (RDC/TMD) was developed. In this dual-axis classification system, Axis I provided the all-too-familiar physical or biomedical diagnoses, and Axis II provided the new and important psychosocial profile. Here we have an early and important demonstration of “putting the mouth into health,” whereby the physical orofacial diagnosis was linked to a measurable impact on the individual’s activities and mental health. While this assessment model was enthusiastically used by clinical researchers, it was not universally adopted by clinicians because it was considered predominantly a research tool. There were, however, additional significant barriers to the implementation of this classification system, including the prevailing societal view of the biomedical model of disease; many funding sources that included insurers limiting payments for care to only biomedical treatment; the lack of established multidisciplinary management teams; and the lack of widespread health education and calibrated training

in biopsychosocial assessment and management. These barriers unfortunately continue in many places today. Despite this from the early days, a number of academic clinical units did “put the mouth into health” by adopting the dual-axis classification, undergoing standardized training for clinical assessment, and incorporating other health practitioners—including psychologists and physiotherapists—into the service.

This resulted in a plethora of clinical and translational research into TMD classification and management, demonstrating that patients could be defined based on emotional distress and functional disability and that strategies directed at these aspects of the illness were typically more effective than the usual care, which was predominantly dental interventions. Consequently, an important outcome of the biopsychosocial model was the evidence-based edict that chronic TMD patients should receive noninvasive, reversible management strategies. Indeed, Michael Von Korff coined the very appropriate phrase that TMD was “an illness in search of a disease.”<sup>1</sup> Out with the dental occlusal adjustments, articular disc implants, and other invasive interventions; and in with self-care, stress management, and cognitive behavioral therapy. This was initially very contentious, and, unfortunately, today there are still proponents—both clinicians and patients—for an exclusive dental focus to management and keeping the mouth “out” of health.

Forty years on, and the biopsychosocial concept has stood the test of time, with research advancing the field in multiple ways and reinforcing the need to “put the mouth into health.” In the area of diagnosis, the International Association for the Study of Pain has revised the chronic pain classification scheme, and, at a high level, subdivides it into chronic primary pain, which is agnostic with respect to etiology, and chronic secondary pain, which results from an underlying disease process. Importantly, in chronic primary pain, which includes TMD, a diagnosis requires not only pain for 3 months or more, but the pain needs to be associated with significant emotional distress and/or significant functional disability. Without this impact, a diagnosis is not made.

Other classification schemes closer to home have been updated. The TMD classification has been revised, and the current Diagnostic Criteria for Temporomandibular Disorders (DC/TMD) system provides improved clinical utility. Not only does this classification system have simpler diagnostic criteria,

but the training to learn this system can, in addition to calibrated hands-on teaching, be done via video (<https://www.mededportal.org/publication/9946/>). With this classification, the Axis II psychosocial parameters have been expanded to include assessment of anxiety and jaw parafunction, and future iterations will include assessment of biomarkers as we advance in the fields of genetics, epigenetics, and neuroscience. An expanded taxonomy for TMD was concurrently developed to expand on the common TMD in the DC/TMD and includes diagnostic entities beyond the orofacial region, including systemic arthritides, congenital/developmental disorders, movement disorders, and muscle pain attributed to systemic pain disorders. Furthermore, a draft of an orofacial pain classification scheme advancing the well-used and clinically useful American Academy of Orofacial Pain taxonomy has been released, and also requires looking beyond the face, with a need for psychosocial assessment that has been aligned with the TMD classification. As important as the classification scheme was the process in which four large independent organizations—the International Association for the Study of Pain, the International Association for Dental Research, the American Academy of Orofacial Pain, and the International Headache Society—worked together, collegially and coherently, to develop the classification. All in all, the results bode well for clinicians and researchers to speak the same language when discussing orofacial pain and its variants, as well as the impact of pain on the individual's wellbeing and on society.

An interesting finding with painful TMD is that as they endure, most patients report pain in both joints and muscles despite it starting in one or the other of these anatomical sites. This regional spreading of pain can take as little as 6 months. Pain and its impact can also be found beyond the orofacial region, with chronic TMD patients who, compared to healthy individuals, report more headache, neck pain, and widespread pain and overall poorer health and greater

disability. In these patients, there are frequently overlapping pain conditions such as fibromyalgia, irritable bowel syndrome, chronic fatigue syndrome, or chronic tension-type headache or migraine. Those with overlapping pain complaints suffer more depression and anxiety, sleep poorly, are distressed, and arguably have a much more complex and different disorder compared to those with a localized TMD. For pain that spreads or overlaps, heightened generalized pain sensitivity and psychologic distress have been explained through interactions between genetic factors and environmental events, such as injuries and physical or psychologic stress.

This all points to the need for us to “put the mouth (and face and head) into health” through a thorough biomedical and psychosocial assessment. As Sam Dworkin states,<sup>2</sup> we need to be biobehavioral clinicians (and researchers). Not to do so is artificial and could be considered negligent from a clinical perspective or as poor experimental design from a research perspective. It is hoped that current and future research demonstrating the strong links between orofacial health and systemic health will prompt educators to translate these clinical findings, funders to pay for integrated multidisciplinary care, and health care organizations and policies to facilitate “putting the mouth into health” through shared patient management systems.

Chris Peck  
Associate Editor

## References

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