Managing Orofacial Pain: Co-Designing The Way Forward

The field of orofacial pain and related disorders is at an important crossroad: We are seeing the integration of research from the past three decades with the potential to dramatically change the clinical landscape, with the all-important goal of improving health and wellbeing. A simple search in Medline for the keywords "orofacial pain" and "temporomandibular disorders" shows approximately 30,000 publications since 1992, with over 2,000 publications in the last year alone. Many of the good articles are featured in this Journal. We have seen the refinement of the classification of temporomandibular disorders (TMDs) with the release of the Diagnostic Criteria for TMD[1] and its related expanded taxonomy,[2] and more recently the International Classification of Orofacial Pain.[3] The Orofacial Pain: Prospective Evaluation and Risk Assessment (OPPERA) supplement has identified risk factors for the development of painful TMD through an impressive collection of prospective data in over 4,000 adults over a 5-year period,[4] and the recent OPPERA: Act 3 supplement published in this Journal[5] has highlighted that TMDs can coexist with other chronic pain conditions, which impacts prognosis, health, and treatment response. In the US, the National Academies of Sciences, Engineering, and Medicine recently published its comprehensive report on priorities for research and care for TMDs,[6] providing over 400 pages of contemporary evidence leading to 11 recommendations that are as applicable internationally as in the USA.

If one turns specifically to the management of orofacial pain and related disorders, there have also been significant advances. The biopsychosocial construct is the acknowledged framework for chronic orofacial pain management, where the primary focus includes reducing pain, pain-related disability, and managing distress, anxiety, and depression. Optimizing structural relationships of the dental occlusion and/or between the maxilla and mandible are not indicated in contemporary pain management[7] and never should have been. This has been an unfortunate carry-over of the mechanical focus of disease management in dentistry through surgical removal and restoration. Indeed, chronic pain has been considered a disease in its own right,[8] which reinforces the important notion of narrowing the focus of management to the pain and its impact on the individual rather than unsubstantiated links to putative structural etiologies.

While there is much research on orofacial pain management, quantity does not necessarily equate with quality, and it is not unusual to read in the conclusion of systematic reviews that the studies reviewed were of poor quality with issues in one or more areas of research design. This is not because of lack of trying, but rather that clinical research is extraordinarily difficult to do well, not least because humans are complex, multivariable entities in which many of these variables are difficult to control or measure. Nevertheless, this puts into question the clinical utility of such research findings. Even when research outcomes are considered worthy for translation into practice, several barriers often prevent this implementation, including a clinician's experience with the treatment, health service acceptance, remuneration, and cultural and societal values.[9]

A way forward for orofacial pain management is to build on the wealth of past research through the use of innovative research designs. One group worthy of serious consideration is pragmatic and adaptive trial designs where, for example, multiple or combined treatments are tested at once and new treatments are added as they are discovered.[10] These have been proposed to bridge the gap between the highly controlled randomized controlled trial and clinical practice. They typically are run in clinical practice, are large scale to enable the assessment of treatment effectiveness and harm, and have outcomes that are relevant to the patient.

Such pragmatic research will facilitate the development of evidence-based clinical practice guidelines to provide appropriate and effective health care. While there is a dearth of orofacial pain management guidelines, there are some exceptions, including management of trigeminal neuralgia[10] and standardized TMD self-management.[11] The implementation of these guidelines can be achieved through person-centered care pathways that are developed to manage patient care, improve quality, reduce variation, and increase efficient use of health care.[12] A person-centered care approach is emphasized, where outcomes that matter to that person are the focus (and, importantly, the term "patient" is replaced with "person" to reduce the doctor-patient power differential, and noting that "person" should lead the decision-making in their management).

Complementing the development of guidelines and pathways to enhance care is the need for a team approach to chronic pain management; however, this has not been established in many secondary or tertiary health care services, let alone primary dental care

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practices. Moving forward in the education and training environment, there need to be multidisciplinary teams of health practitioner students including, but not limited to, dentists, psychologists, physiotherapists, primary care physicians, neurologists, anesthesiologists, rheumatologists, and others as needed to help advance this mission. This can be helped greatly through regulation and the development of competencies of the new health care practitioner that emphasize models of interprofessional care. There is a need for broader "public health" initiatives, such as campaigns to educate our communities on the notion of managing pain rather than curing it and to recognize risk factors to avert the development of chronic pain. The TMJ Association (https://tmj.org/) is one advocacy group that has reached out effectively into the community to do this, and there are government agencies and dental organizations that attempt this, too.

To effect a shift in clinical management, we need to mobilize important resources, including consortia of clinicians and researchers, as well as the Academies around the world who have this as their official journal, the International Network for Orofacial Pain and Related Disorders Methodology (INfORM) of the International Association for Dental Research (IADR), and the Special Interest Group on Orofacial and Head Pain of the International Association for the Study of Pain (IASP). They, together with patient advocacy groups, other health professionals, and experts in implementation science, policy, and practice, are integral to driving change. The trending word is "co-design," meaning that we establish a collaborative venture including those most affected and those able to effect change to collectively define the problems and create solutions. Nowhere is this more important than in the management of chronic conditions such as complex orofacial pains and related disorders.

Chris Peck
Associate Editor

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