



## Diagnostic Criteria for Temporomandibular Disorders: Evolution and Debate

For many decades, controversy and debate have surrounded the causes, diagnosis, and treatment of a medley of signs and symptoms affecting the temporomandibular joint (TMJ) and associated masticatory muscles. Over time, this medley has become referred to under the widely used umbrella term of temporomandibular disorders (TMD), of which pain in the TMJ and/or muscles is a major feature. While the etiology and pathogenesis of TMD remain unclear, this lack of clarity has not hindered extensive research and clinical focuses on the diagnosis and management of TMD and related conditions; indeed, it has added some of the fuel to the decades-long debate about appropriate diagnostic and management approaches for TMD.

The debate continues in this issue of the Journal by way of a Focus Article by Drs Steenks, Türp, and de Wijer, three Critical Commentaries on the Focus Article by Drs Okeson, Schiffman and Ohrbach, and Svensson and Bendixen, and the Authors' Response to them by Steenks et al.

The Focus Article has spotlighted the Diagnostic Criteria for TMD (DC/TMD), which was published in this Journal in 2014<sup>1</sup> and represented a major revision of the Research Diagnostic Criteria for TMD (RDC/TMD) instrument, a landmark article that was also published in this Journal in 1992 by Drs Dworkin and LeResche.<sup>2</sup> The new DC/TMD evolved from a Validation Project and subsequent workshops and discussions involving several TMD researchers to evaluate, and, where necessary, revise the RDC/TMD Axis I (which deals with the physical features of TMD) and Axis II (which assesses related psychosocial aspects of TMD). The DC/TMD authors indicated that the changes that were incorporated into the DC/TMD made this new instrument more appropriate for research studies and for application in the clinical assessment of patients.

In their Focus Article, Steenks et al commend the DC/TMD authors and note many of the improvements that the DC/TMD instrument has made to the RDC/TMD. But they also raise a number of points particularly related to Axis I of the DC/TMD that they argue justify the need for modifications and bring into question the clinical application of the DC/TMD instrument in its present form.

In his Critical Commentary, Okeson notes that the two main purposes of the DC/TMD were to refine and standardize diagnostic groups for further research of TMD and to enhance clinical management, and he points out several positive features of the DC/TMD and the suggested changes outlined in the Focus Article. In their Critical Commentary, Schiffman and Ohrbach (who were two of the authors of the DC/TMD publication<sup>1</sup>) make the point that the criteria will indeed need more revisions as more relevant research becomes available, but continue to argue the case for the instrument's clinical application, as it is the best cur-

rently available for clinical use as well as for research. Likewise, in their Critical Commentary, Svensson and Bendixen also feel that the DC/TMD instrument is more valid or reliable than the RDC/TMD and that research will continue to guide its revision, nonetheless recognizing that the TMD field continues to be impeded by the lack of a clear understanding of the causes and mechanisms underlying TMD.

Steenks et al and Schiffman and Ohrbach do appear to agree that the DC/TMD, if used clinically, should not be used as a stand-alone instrument for diagnosing orofacial pain states. Indeed, Svensson and Bendixen agree, arguing that the DC/TMD should be broadened into a more comprehensive classification scheme for orofacial pain states and related conditions.

It is clear from this series of articles that the diagnosis and management of TMD will continue to evolve with gradual but decided improvements that have been driven by research. But it needs to be kept in mind that these articles by design focus principally on Axis I features. Thus, while there is a need for a continued focus on clinical and basic science research into the etiology and pathogenesis of TMD and for its diagnosis and management, this focus needs to include Axis II features, since it is now clear from research over the past few decades that psychosocial characteristics and their underlying mechanisms represent crucial factors influencing the expression and management of TMD. Such a focus should also include the recognition that TMD themselves are not stand-alone conditions, but have several features and mechanisms in common with many other chronic conditions manifesting pain. This argues further for the need for a more comprehensive classification scheme that takes into account other pain states and related conditions (eg, headaches) and their common comorbidities (eg, depression, sleep disorders), as well as for multidisciplinary research that clarifies and unravels underlying mechanisms from a broad perspective.

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### References

1. Schiffman E, Ohrbach R, Truelove E et al. Diagnostic Criteria for Temporomandibular Disorders (DC/TMD) for clinical and research applications: Recommendations of the International RDC/TMD Consortium Network and Orofacial Pain Special Interest Group. *J Oral Facial Pain Headache* 2014;28:6–27.
2. Dworkin SF, LeResche L. Research Diagnostic Criteria for Temporomandibular Disorders: Review, criteria, examinations and specifications, critique. *J Craniomandib Disord* 1992;6:301–355.