

## **Reliability and Validity of the DC/TMD Axis I**

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**W**e thank the authors of the critical commentaries for their efforts and appreciation of our recommendations to improve the DC/TMD.<sup>1</sup> Drs Schiffman and Ohrbach have mentioned the Standards for Reporting Diagnostic Accuracy (STARD) requirement to justify the use of computed tomography (CT) and magnetic resonance imaging (MRI) as a reference standard in the Validation Project. Yet, the inclusion of a reference standard that does not show an association with the temporomandibular conditions under study cannot be the basis to report diagnostic accuracy. Without doubt, CT and MRI play an important role in specific TMD conditions to confirm temporomandibular joint (TMJ) inflammation in rheumatic disease, malignancy, or growth disorders. In nonspecific temporomandibular conditions, however, the role of imaging is less pronounced. We are convinced that this point will continue to be discussed as long as a proper reference standard for nonspecific temporomandibular conditions is lacking. Without an appropriate reference standard, it is not possible to report sensitivity and specificity of the (R)DC/TMD

tests. The most one can achieve at this point in time is to report the reliability of test results within and among examiners. Moreover, the risk of circularity in the Validation Project raises doubt over the presented diagnostic validity, as other authors have already pointed out.<sup>2</sup>

We concur that in an ideal world of clinical practice, clinicians and researchers should use the same language. But before involving other medical disciplines and classification systems, such as the International Headache Society (IHS) classification, one should have a higher degree of consensus within the RDC/TMD consortium first. The Letter to the Editor by Svensson et al<sup>3</sup> does not support such an agreement. The DC/TMD subgroups “subluxation of the TMJ” and the three myogenous subgroups do not yet appear to be logical to clinicians inside or outside our field.

Dr Okeson echoes our concern that anchoring is a highly important construct in decision-making. In the context of pain screening,<sup>4</sup> anchoring is likely to induce flaws through false diagnosis and resulting inappropriate management. The three questions in the

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pain screener<sup>4</sup> are part of any examination protocol when assessing pain in the head and neck and only offer additional value when they are used as part of an extended assessment. Nonetheless, the clinician should not be encouraged to use this screening instrument as a stand-alone instrument to detect non-specific TMD pain.

Pain assessment in the DC/TMD is mostly based on palpation even though the pain on pressure construct is bound to render false positive results. Although the temporalis and masseter muscles have been acknowledged to be the only masticatory muscles accessible to palpation, other muscles are still part of the DC/TMD.<sup>4,5</sup> We do not see any justification for mentioning and describing the palpation of the lateral pterygoid and posterior digastric muscles because it encourages dentists to believe that the RDC/TMD consortium endorses the inclusion of these muscles during the clinical examination. Like the disclaimer for the use of the DC/TMD as a stand-alone protocol in new patients with orofacial pain, the protocol<sup>5</sup> should discourage the palpation of non-accessible structures.

Data support our statements regarding the examination of the masticatory system and the cervical spine in conjunction with psychosocial factors.<sup>7-9</sup> Neither the RDC/TMD nor the DC/TMD protocol characteristics have convinced us to replace our protocols in our clinical settings. Moreover, clinicians and researchers need to realize that the differences between clinical and research settings necessitate different approaches. In clinical settings, the clinician proceeds while adapting to the presented clinical problem. Conversely, in research settings, a clinician is obliged to follow the research protocol under study. Following the DC/TMD protocol (Axis I, or Axis I and II) is not complying with a clinical approach.

According to the results of the Validation Project, the RDC/TMD was not as appropriate as it had been advocated by its proponents. Similarly, progress in knowledge will also improve the contents of the DC/TMD. Consequently, we advise further testing of the DC/TMD instrument in clinical research instead of its immediate implementation in clinical practice.

We appreciate the invitation by Drs Svensson and Bendixen to join the RDC/TMD group. However, in order to be able to have an overview of the complete working process and the results, keeping a neutral distance appears advantageous to us because it provides the necessary space for critical reflection without any intention to compete with or even to “beat” the DC/TMD.

In sum, we strongly believe that the RDC/TMD consortium has been making a commendable contribution in the quest to improve the diagnosis and classification of TMD patients. The intention of our Focus Article was to support the group in their efforts to improve diagnostic, therapeutic, and prognostic procedures for the benefit of patients. We welcome cooperation among organizations, and we strongly endorse the consideration of new developments in our common field.

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