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The authors would like to thank Drs Goulet,[1] Greene,[2] and Svensson[3] for their valuable comments on our Focus Article[4] "Validity of the research diagnostic criteria for temporomandibular disorders Axis I in clinical and research settings." Because the Critical Commentaries in general are very supportive of the thoughts and suggestions brought forward in the Focus Article, we would like to add some comments on their use in children and adolescents in addition to our response to the Commentaries.

The Research Diagnostic Criteria for Temporomandibular Disorders (RDC/TMD) in Clinical Settings

The RDC/TMD were originally proposed for research purposes; we do not need to contradict what has been written by the original authors.[5] As with the use of other instruments (eg, the Helkimo index, originally proposed for epidemiologic research but later used for evaluation of treatment effects without any additional research on the clinical validity of the instrument), later interpretation cannot alter their original purpose, an opinion supported by the flaws acknowledged in the Commentaries. The clinical use of the current RDC/TMD in the diagnostic process of patients with a suspected TMD cannot be recommended, despite the observation that a clinician will not limit him/herself to the lower part of the scheme. This conclusion is based on the fact that the RDC/TMD originally were extracted from a study on clinical diagnostic criteria for TMD[6] on the basis of methodological quality. The transfer of the clinical diagnostic criteria to the research diagnostic criteria may be quite appropriate for some clinical diagnoses, but this process has not been described or validated. And some real-world conditions such as episodic catching[6] (also known as intermittent locking of the temporomandibular joint) were not included in the RDC/TMD.[5]

We are not concerned that the RDC/TMD will remain unchanged into adult life, as one of the comments may suggest. We are concerned that when patients are exclusively evaluated by this system, the readers, editors, and reviewers of reports of studies of these patients will not be able to know which other diagnostic instruments (if any) were used.[7] In addition, the reliability studies do not support their clinical use. Those who work in clinical centers (private clinic, hospital, or specialized clinics) know that solely using the RDC/TMD may lead to false negative and false positive findings, which is not tolerable in clinical care. Indeed, the classical cycle of research, education, clinical use, and then research again focuses on the stages of information brought from universities to clinicians and then back again to the research centers.[8] Despite our opinions about the RDC/TMD, we do teach it to our students. But we do not implement the taxonomy in our clinical care. The case report[9] referred to and the flaws in the current RDC/TMD as described in the Focus Article substantiate our view that the sole use of the RDC/TMD can lead to incorrect diagnosis and treatment. In the Netherlands, the RDC/TMD are advocated in education as an appropriate way to examine the clinical patient. Although one of the Commentaries does not see the mission statement as a recommendation to use the RDC/TMD uncritically, even if they are used critically, the problems as described do occur. There is not yet a scientific publication that can approve of the expansion of the original mission of the RDC/TMD to clinical use.

Clinical Examination and Diagnostic Algorithm

There is an obvious lack of balance between the number of muscle sites and joint sites. We agree that a diagnosis of Group I disorders by definition cannot occur "at the expense" of joint pain disorders. But the probability of an overrepresentation of muscular (Group I) conditions is realistic and due to the high number and proclivity for positive responses of certain muscle sites compared to joint sites. This results in a very high prevalence of Group I disorders, whether accompanied by other diagnoses or not. The striking decrease in Group I diagnoses in the Yap et al study[10] compared to other studies[11] may have a partial explanation in cultural or genetic issues, as described in one of the Commentaries, although expertise in these

domains is still embryonic. But we believe the difference is more likely to stem from differences in the criteria used: one painful site on the side of the ongoing pain versus three painful sites. One painful ipsilateral palpation muscle site for a Group I diagnosis out of a series of 20 sites, of which several have a natural tendency to be painful, is a very low criterion indeed. However, we agree that one painful site might have the potential to lead to a Group I disorder under the following conditions: only extraoral sites of muscles that can be palpated (masseter and temporalis muscles only) *and* aggravation/provocation of the very pain of the patient by character and location, *and* aggravation/provocation by mandibular movements of these pain characteristics.

We also would like to add to our suggestions for improvement that children and adolescents need to be addressed with adapted questionnaires and examination techniques. The current RDC/TMD are inappropriate for minors.

The authors do hope that the Focus Article and the clarifications as well as the Commentaries can help to improve the original set of the RDC/TMD.

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