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LETTER TO THE EDITOR

RE: Paper by Fornai C, Tester I, Parlett K, Basili C, Costa HN. *J Oral Rehabil*. 2022 Apr 4. [Online ahead of print]

When we published our paper[1] in this journal in September, 2021, dealing with the topic of centric relation (CR), we certainly expected to see some critical reactions and responses from the dental community. After all, our paper not only recommended abandoning both the concept and the term CR but it also suggested that dentists should stop evaluating the condyle-to-skull relationship in the majority of the human population. Our reasons for reaching those conclusions were based in large part on a thorough evaluation of the historical CR literature, which showed that the definitions and locations of CR were constantly changing; this raised the question of whether such a jaw relationship even existed, or whether it was simply a conceptual issue. As an alternative to CR, we argued that the maximum intercuspation of teeth should be regarded as the prime determinant of jaw-to-skull relationships in healthy dentate people.

Based on a previous paper by one of the authors,[2] we showed that the condyle in the closed-jaw condition in humans does not articulate in the glenoid fossa, but instead is strongly loaded high up on the slope of the articular eminence. Since this is a highly individualised position that is unique for each person, there is no formal name that should be assigned to it, nor should it be evaluated for its biological acceptability if the patient is not having any significant clinical problems. Later in the paper, we listed three common dental scenarios in which occlusal relationships and jaw relationships required changing, and we discussed the management of both relationships in those clinical situations.

However, instead of receiving a letter to the editor or some other conventional form of criticism, we see that the JOR instead decided to publish an entire paper devoted to attacking nearly every aspect of our article.[3] After their lengthy and detailed criticisms of several points from our paper, the authors stated that we were "invited to clarify" seven issues that looked like a lawyer's questions in preparation for a deposition. Oddly, they then indicated that they were in agreement with our proposal to abandon the term CR – but only as a setup for them to introduce their own favourite term (Reference Position [RP]) as being an acceptable alternative:

> Differently from centric relation, the term Reference Position is advantageous because it is not evocative of a predetermined configuration of the condyle within the glenoid fossa. As explained in reference 8 (p. 69), when Reference Position is achieved: 'The mandible is in physiologic retral border position. All structures of the joint are unloaded, that is, the ligaments are not in tension in any direction. There is only minimum muscle activity and no pressure on cartilaginous structures'.[3]

Without going into any detailed critique of that term or those listed criteria, it is clear that this is simply a thinly veiled substitution for the term CR. It tells clinicians that there is a best/optimal/ideal place where the mandible ought to be, and every patient's dental relationship should be evaluated as being either well or poorly related to it.

As a result, this new publication not only fails to rebut the essential points raised in our article, but it further confuses the readers by bringing in another jaw-to-skull terminology for them to contend with. The intention of our paper was to move the discussion of this topic forward into a 21st-century framework, one which would protect patients from inappropriate occlusal/jaw examinations while enabling dentists to proceed with the necessary elements of good dental care. We believe that our paper has accomplished that goal by presenting a mountain of basic and clinical evidence to support the positions we have presented there, and we hope that discriminating readers will agree with that conclusion.

PEER REVIEW

The peer review history for this article is available at https://publons.com/publon/10.1111/joor.13346.

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