Reviewer's report

Title: Pain perception and functional/occlusal parameters in sleep bruxism subjects following a therapeutic intervention

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Reviewer: Maurits K A van Selms

Reviewer's report:

I would like to congratulate the authors for their manuscript. I (still) have, however, several remarks on writing and interpretation of results.

Unfortunately it is clear that English is not the native language of the authors. For example, the first sentence of the abstract is written in the past tense [correct], whereas the second sentence refers to the future: 'several functional parameters should be investigated'. This is a relatively small aspect compared to the incorrect use of 'has been/ have been' instead of was/ were (throughout the entire manuscript; for example p6/line 26 and 33, p8/ll5 and l20 etc.).

I have great concerns about the fact that the authors compared the recorded individual pain perception scores with those from a reference table belonging to the Pain Perception Scale. Even though this table is ought to be based on information of more than a thousand persons, attention should be paid when directly comparing scores. It is very likely that the comparison group consisted of persons who were not in the same age range as those of the study (viz. 20 - 40 years). It is without question that studies should always try to include their own reference group. The following argument needs to be taken carefully 'Due to its good to very good reliability values, this instrument has been proved suitable for group comparisons, comparisons with a reference group and the evaluation of therapeutic effects.' I do have my doubts about this, especially when there is such an extreme small difference [only 1 point!] of the obtained scores with the reference (…obtained values ranged between 37 and 38. As T-values between 30 and 39 were categorised as below average etc.)

Why did the authors aim to investigate ten standard functional/occlusal parameters? In case the current literature still points to the potential relationship between occlusal/anatomical factors and bruxism, which I doubt, please provide the references.

In the table I see that the baseline group guidance was significant between both groups. Why isn't this mentioned in the text/ may this have influenced the results?

Significant changes were observed with respect to the maximum active right lateral movement and the resiliency of the right TMJ. What can I conclude from this, why not left? Perhaps this is due to chance as the authors investigated a lot of variables within (only) 57 participants?

Table 1: the footnote about education and crowding should be in Statistics.
Tables 2 and 3: where can I see the outcomes of the statistical tests as mentioned in the footnotes

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