Reviewer's report

Title: Prevalence and association of self-reported anxiety, pain, and oral parafunctional habits in Japanese children and adolescents with temporomandibular disorders: A cross-sectional survey

Version: 2
Date: 2 December 2014

Reviewer: Masahiro Heima

Reviewer's report:

This is a very interesting and meaningful manuscript for researchers in dentistry, pediatric dentistry, and the TMD field. This manuscript was composed with appropriate methods to test their hypotheses, and the author’s discussion of statistics and clinical differences in the results was adequate. I didn’t see any critical problems in the justification of the research and methodology. Furthermore, the results, discussion, and conclusion are well written, and contained significant helpful information for readers. However, I’d like to have some additional information, especially in the methodology section, for further clarity and to increase reproducibility of this research. I'll recommend some minor changes to this effort below.

Major Compulsory Revisions:
None

Minor Essential Revisions:
Line 81: Please specify the reasons why you focused on 11-15 year old individuals. (Do you have any reasons why you couldn’t study 10 year old children and younger, and 16 year old children and older? Was there a readability problem in the questionnaire for younger children? If you tried to contact older children, did you have any problems accessing them?)

Line 82: Please provide the selection process of how you chose the school. (Were the schools selected randomly?)

Line 80-89: The report of the number of subjects is unclear. Please provide the number of students that were invited, participated, excluded due to the exclusion criteria (such as mentally challenged), didn’t complete the questionnaire, and the final sample size (1415 students).

Line 87: Pleased provide any reasons for the 263 students who couldn’t complete the questionnaire. (Were they capable of completing the questionnaire or was there a reading comprehension issue? Were there any problems with the questionnaire that prevented completion? Did their response have “Missing Completely At Random”? Were there logistics problems?)

Line 96: Double check the name of the questionnaire, “the Research Diagnostic
Criteria for Temporomandibular Disorders, History Questionnaire.” It was “the Research Diagnostic Criteria for Temporomandibular Disorders”, wasn’t it? “The Research Diagnostic Criteria for Temporomandibular” was written in English. Please provide how to develop the Japanese version or a reference/article, which introduced the Japanese version of the Research Diagnostic Criteria for Temporomandibular.

Please provide the availability of the questionnaire for researchers who would like to use it.

Please provide the number of items in the questionnaire and readability level.

Line 104: I assume that the authors have developed the questionnaire for daily life for this research purpose. Please provide the source of questions if it is available. I recommend using “To assess ordinary daily life, a questionnaire was developed based on ...(references)...by the research team. This questionnaire consisted of 15…” instead of “To assess ordinary daily life, …”

Line 121: There is a misstatement: “the measurement of state and trait anxiety” ; this should be written as “the measurement of trait anxiety”.

Line 204-: There is a problem in the sentence “The higher proportion of girls in the TMD group may cause a significant difference in STAIC-T scores.” The multivariate logistic regression model analysis consisted of both age and STAIC as covariates. Thus, the results of STAIC was calculated with controlled gender. So, the effect of the proportion of girls in TMD cancelled to compute the effect of STAIC. I recommend you re-consider the sentence.

Line 252-: Could you state why you think the study is still valid after each limitation?

Discretionary Revisions:

Line 30: The words of “presence/absence of TMD symptoms” are used many times in this manuscript, however these terms might mislead some readers; “presence” or “absence” were decided based on the student’s perception instead of dentist’s examination. Some readers might believe “present symptoms” exist. So, “reported” might be better wording instead of “presence/absence.”

Line 32, 45, and 266: I recommend using the term “trait anxiety” instead of “anxiety trait.”

Line 33: I recommend “Subjects were dichotomized into two groups, TMD group and control group, based on whether they reported at least one TMD symptom” instead of “On the basis of the presence/absence of TMD symptoms, 2 groups were formed.”

Line 83: What does “general schools” mean? Does it mean “public schools” or “elementary schools and junior high schools”?

Line 97: I recommend using “This questionnaire consisted of (the number of
questions) questions in TMD symptoms (i.e., jaw pain, TMJ sounds, and limited jaw opening) during the previous 3 months” instead of “All subjects self-reported the presence/absence of TMD symptoms (i.e., jaw pain, TMJ sounds, and limited jaw opening) during the previous 3 months.”

Line 123: Provide the readability level of the Japanese version of STAIC.

**Level of interest:** An article of outstanding merit and interest in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.