Author's response to reviews

Title: Temporomandibular joint disorders severity related to the degree of mouth opening and hearing loss.

Authors:

Panagiotis Kitsoulis (pkitsoulis@hotmail.com)
Aikaterini Marini (katerinaki88@yahoo.gr)
Kalliopi Iliou (kallina2@hotmail.com)
Vasiliki Galani (vgalani@cc.uoi.gr)
Aristides Zimpis (azimpis@hotmail.com)
Konstantinos Natsis (konatsis@hotmail.gr)
Georgios Paraskevas (g_paraskevas@hotmail.com)

Version: 2 Date: 22 December 2010

Author's response to reviews: see over
Dear Sirs,

Thank you for your time dedicated to our manuscript. Here we submit the revised version of our manuscript. We moved on with several changes as all the three reviewers suggested and here we attach a letter for each of them providing a point by point response to the concerns. All the changes are tracked as you asked as to do.

The written language of our manuscript has been edited by “English Manager Science Editing” as you suggested.

We are looking forward to receiving any further changes required.

Thank you very much in advance,

Prof. P. Kitsoulis
Dear Mr. Fricton,

Thank you very much for your time dedicated to our manuscript. We found your comments exceptional and moved on with the changes you suggested.

**Major Revisions**

1a. We transformed this sentence limiting only to factors examined in our study.
1b. We erased the present sentence and the relevant reference as you suggested.
2. The students were conducted via the secretary of the Laboratory of Anatomy-Histology-Embryology using the phone lists of our Medical School. All of them were informed about the concept and aims of our study and only 7 of them did not appear to participate in our study. If you think it is important to mention it in the manuscript please let us know to add it.
3. We transformed the present sentence as highlighted. We used maximal mouth opening in order to stratify our subjects and not as TMD and non-TMD ones as we did not collect all the data of Schiffman et al. The total score of each subject was the one that categorized him as TMD or non-TMD patient.
4. We did not undertake any kind of clinical examination regarding TMD as described in Schiffman et al. Our study was based on the anamnestic questionnaire and the audiometric findings.
5. We revised the whole Background and Discussion part dropping out almost all etiologies of TMJ signs and symptoms and focusing on the aural ones as you suggested. The Discussion part has been eliminated.
6. We erased the hypothetic statement “this may be the result…inflammation” and we were limited to the published data.

**Minor Revisions**

1. Joint pain was recorded as a symptom severe enough to be perceived and annoy the patient. Bruxism was recorded only if another person or a doctor has noticed this parafunctional activity. Joint ankylosis was strictly considered if the subject has seek an expert’s help for this sign. We took the above under consideration no matter the time period the symptoms lasted.
2. The aural symptoms, apart from hearing loss, are subjective ones. The authors described each feeling in non-scientific terms (e.g. vertigo: the feeling that you or things turn around you) and the whole questionnaire was based on their responses. We did not include any kind of time parameter in the aforementioned symptoms. The same variables were used by Cox KW (Arch Otolaryngol Head Neck Surg, 2008) and thus we adopted the same methodology.
3. All the results are now presented with regard to both n and %.
4. We leaved out this sentence as you suggested.

Finally, we would like to inform you that the quality of written language has been ameliorated by the “English Manager Science Editing” as suggested by BiomedCentral.
Thank you very much for your comments and we would be delighted to receive any further revisions you suggest.

Yours Sincerely,

Prof. P. Kitsoulis
Dear Mr. Chaves,

Thank you for your time and attention dedicated to our manuscript. We found your points really useful and we moved on with several changes according to your suggestions. More specifically:

**Major Revisions**

1. The word ‘'correlation’’ was replaced with the ‘'relation’’ in our title. We found a relationship between TMD and mouth opening and hearing loss but certainly they were not correlated.

2. The ten-questions questionnaire applied to our subjects was validated by Fonseca et al. (1992) and it is now cited as Ref. 16 in methodology part. Furthermore, Conti et al. (J Orofac Pain, 1996) and Silveira et al (Rev Bras Otorrinolaringol, 2007) used and validated the same questionnaire as well. As far as it concerns the symptoms and signs of bruxism, joint pain, joint ankylosis and the aural ones, some of them have been incorporated in several TMD studies (e.g. Cox KW, Arch Otolaryngol Head Neck Surg 2008) but we validated that secondary questionnaire as well. Four weeks before administrating it to the whole number of our volunteers, we asked from 20 different persons-not joining the study afterwards- to complete that questionnaire. McNemar test was used to verify or reject the hypothesis of no difference between each ‘paired’ answer for the questions. For all the questions p>0.05 signifying that there was no statistically significant difference between each answer given twice by the same person, and thus we could move on with the use of all our questions.

3. We were stitched to several studies based only on an anamnestic questionnaire referring to TMD. We did not include a clinical evaluation of our volunteers and thus we now refer t as a limitation of our study to the Discussion part.

4. Our study includes a large number of variables and thus there was no other way but undertaking all those tests in order to examine a probable relationship between the parameters defined. All the statistical process has been overviewed, checked and approved by two statisticians of our working team. If you would like to propose any particular test or analyzing method, we would be grateful to conduct it.

5. The tests undertook demand the presentation of all those data on the tables. Please let us know exactly what data would you suggest not to be available to a future reader of the manuscript. To our knowledge and to our statistician’s opinion all the data presented are essential for the manuscript. Nevertheless, please precisely define the lists you would like to be erased.

6. In our study we made an effort to associate TMD severity (the subjects were stratified in TMD ‘'severity’’ groups according to their answers in the anamnestic questionnaire) with mouth opening and hearing loss. Given that the critical range of mouth opening differs among different ethnicity and age groups (Scott B at el., Oral Oncol 2008, Mezitis M. et al., J Oral Maxillofac Surg 1989, Dworkin SF et al., J Craniomandib Disord) and based on the fact that this is the first study on a young Greek population, we did not considered as ‘'normal’’ or ‘'pathological’’ any previous mouth opening measurement in other non-Greek or elder populations. Our severity groups were created according to an already validated questionnaire and following the same already acceptable methodology for evaluation (Fonseca et al. 1992).
7. In ‘‘Methods’’ part we added that joint ankylosis was evaluated on condition that the subject seek for a physician’s help for that reason. It was a mistake that this detail was not referred before.
8. We corrected TMS in TMD.
9. We revised this paragraph as you suggested.
10. We revised and reduced the extent of the ‘‘Discussion’’ part as you suggested. We focused on the aural findings instead of all the TMD signs and symptoms.
11. We added a paragraph referring to the limitations of the present study.
12. We checked and corrected the spelling mistakes throughout the text. Furthermore, an editing company corrected the text where needed.
13. We added two of the studies that justify this statement.
14. We limited the number of references as you suggested. Please let us know if you suggest any further limitation of the number of references.

Finally, our written language was ameliorated by ‘‘English Manager Science Editing’’ as suggested by BiomedCentral.

We would like to thank you very much for your precious comments and we hope that the present version of our manuscript is satisfying enough for you. Please, let us know if there are any other revisions that you suggest.

Thank you for the co-operation,
Yours Sincerely,

Prof. P. Kitsoulis
Dear Mr. Ramirez,

Thank you very much for your time and attention dedicated to our manuscript. We have moved on with several minor changes in order to ameliorate our manuscript and the quality of written language. Please let us know if you suggest any further revisions.

Thank you very much in advance,

Prof. P Kitsoulis