Author’s response to reviews

Title: The impact of dental treatment and age on salivary cortisol and alpha-amylase levels of patients with varying degrees of dental anxiety

Authors:
Majed AlMaummar (muammf@hotmail.com)
Huda Othman AlThabit (dr.huda.alasker@gmail.com)
Sharat Chandra Pani (sharat.pani@gmail.com)

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1.) Based on their findings the authors conclude that anticipatory heart rate increase is an indicator of dental anxiety but may be absent in dental phobia. What are the theoretical thoughts that underly this assumption?

We beg to differ, our findings DO NOT suggest that heart rate changes are absent in Dental Phobia. In this matter we are in complete agreement with the paper by Wannemueller et al 2017, which suggests that sympathetic activation plays an important role in both fear and phobia. We would like to break the suggestions of the reviewer in to specific parts and address them accordingly

a) We thank the reviewer for the wonderful reference, we have amended the introduction to recognize the above mentioned study as one of the few to actually differentiate between anxious and phobic patients and those who have been successfully managed

b) Heart rate rises in both phobia and fear
We agree with the reviewer; our results show that significant differences exist in heart rate between control and the Phobic and Anxious groups both at three months and one year and we have altered our explanation for this phenomenon in the 4th paragraph of the discussion

c) The absence of difference of significance between heart rate of phobic and anxious children
On this point we fully agree with the reviewer regarding the subjectivity of the scales use and the fact that this was an observational study with follow up. It is not possible to state that our patients were “cured” but the study had to rely on the observations of the clinicians. To this effect we have edited the limitations in the discussion section.

d) Frankl scale has limitations and we agree with the point of the reviewer, we have added a paragraph in the discussion on this point specifically, especially our decision to use it because
of the universal use of the scale in the centers of the study as a matter of routine.

e) General vs. Specific stimuli – our study differs from the paper by Wannemueller et al (2017) in that heart rate was recorded in the waiting area and not in response to a specific stimulus. This has been added as a limitation of the study in the discussion section.

2.) The discussion section still lacks of any recommendations concerning possible clinical applications of the reported findings. How can future child dental treatent benefit from the findings reported here? The section has been edited, with a specific paragraph on the potential and possibilities of behavior change using fear treatments has been added. While the current study can only provide observational data, we have also mentioned the limitations and need for more controlled studies on behavior modification.