Author's response to reviews

Title: Oral health status of 12-year-old school children in Khartoum state, the Sudan; a school-based survey

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Author's response to reviews:

Greetings.

Thank you for the valuable remarks. We have considered the referees’ comments carefully and revised the manuscript: Oral health status of 12-year-old school children in Khartoum state, the Sudan; a school-based survey. Please find attached below our remarks on the reports from the referees. We hope that the paper has become acceptable for publication.

Response to reviewers’ comments

Reviewer 1: Jose Leopoldo Ferreira Antunes

1 ---- the relatively low average of DMFT----- (natural light, overlooking small and proximal cavities) would not be enough to explain such reduced result.
We agree with the comment and have made adjustments in the text, hopefully better indicating that the suggested reasons for decline are some among many.

2 The multivariate model (table 3) being poorly explicative and reasons contradictory.
We have added hygiene habits, dental visit and locality to the model. Dietary habits will be included in a forthcoming paper. The nutritional aspect mentioned in the 6th paragraph of the discussion was not with regard to sugary diet intake but to diet in general resulting in an improved health state and thus the formation more caries resistant teeth.

3 Samples over represented
The sample was weighted before generalizing the results to describe the population. This is described under “representative” results. The reason for constructing equal groups of children attending public and private schools was to enable comparison and to obtain statistically significant results.
4 Poisson regression
Thank you for your comment. We have changed the analysis to Poisson regression.

5 The children gave information about their parents’ education level and occupation only when they were sure. If they were not, a letter was given to them to take home to be completed by their parents and returned on the next day. Nonetheless, we have adjusted the text accordingly for more clarity.

Other Discretionary Revisions have been adjusted in the text.

Reviewer 2: Peter Cleaton Jones

1 Reference to 1997 WHO diagnostic criteria
The dental explorer was not used to probe or detect carious cavities. It has been mentioned earlier that caries was diagnosed when a frank, unmistakable cavity was found. An explorer here was used to assess the accumulation of plaque on the tooth surface. We have added the later sentence in the article to avoid confusion.

2 Water fluoride content
Only one of the randomly selected schools was located in an area that has been proved, by research, to be having a water source with high fluoride content [1]. We felt it would lead to bias if this was excluded (29 students). Otherwise, the fluoride content in the area is unknown, but dental fluorosis is not a frequent problem.

3 Figures
We have omitted the chart and replaced the map with one highlighting the state of Khartoum in Sudan and the localities.

4 Ethical approvals
In Sudan, it has been the norm to obtain consent from the authorities on behalf of the children in the school health programs conducted by the ministry of health. They advised me to follow the same pattern.

5 It would be clearer if numbers in groups were shown in Table 2 that deal with children with DMFT more than 0.
We have adjusted Table 2 accordingly.

Yours sincerely,

Nazik Nurelhuda
