Reviewer’s report

Title: Oral health of 12-year-old Dai children in Yunnan Province, China

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Reviewer: Santosh Kumar Tadakamadla

Reviewer’s report:

Introduction

Though interesting, the introduction is very long. It would be better if the introduction can be shortened that flows gradually from background to the foreground.

The title and aim are misleading as the study population included only school children but not all 12 year old Dai children. Include “School children” in title and aim.

Methods

The exclusion criteria is not clear, what do the authors mean by "significant auto immune disease"

While calculating the sample size, why was the data from a 2005 study (a decade ago) used, is there any recent data. The sample size calculation procedure is not explicit, the authors need to explain this more clearly.

No reference provided for DMFT index, caries diagnosis criteria and CPI (no index teeth according to the latest WHO oral health surveys and CPI in children is used to record gingival status)

No description on how many "Oral health knowledge" questions were there in the self-administered questionnaire and how were they scored, If scored, was the questionnaire validated.

SPSS is no longer abbreviated as Statistical Package for Social Sciences

Did the authors conduct tests of normalcy to see if the data is normally distributed, if not they need to conduct non-parametric tests

Fisher exact test but not the chi square is the test of choice for 2X2 table

As the caries prevalence of caries was very low, we can assume that there we re many subjects who had not caries. In this situation, zero inflated negative binomial regression analysis is the best method for multivariate analysis

Results

In the multivariate analysis table, only few independent variables have been entered while there is no description in the methods that only few independent variables will be entered into the multivariate analysis.

When describing the results that are not be seen in any tables or figures, indicate in the parentheses that "data not presented in the tables"
Discussion

Description on the scarcity of literature on this population is redundant, this has already been dealt with in introduction.

Need to state the limitations of the sampling strategy used, it seems that the districts and schools were selected at convenience.

The best place for writing about the follow up of students, distribution of documents (pg 10, 212-216) is methods. The authors need to describe about the following up the missed students in methods.

Further, the authors describe that parents were provided with questionnaires, what information was sought from parents and why was this data not used in the analysis.

The 1st and 2nd paragraphs on page 11 regarding sugar consumption are conflicting. In the first paragraph, authors describe that sugar in the form of drinks and sweets contributed to greater caries while in the second paragraph, they say that Dai community in China are still on traditional diets.

The third paragraph on page 11 about PUFA index is out of place. The authors might choose to write about PUFA if they have some content to discuss on its usage in the context of current study.

The last paragraph on page 12 which discusses why greater dental caries severity was observed in those children who visited dentist in the previous is not clear, the last sentence in this paragraph is again out of place.

Authors need to include discussion on the oral health behaviour pattern also if there is data on this available from the previous studies in the region.

The last sentence of the discussion is again out of place and doesn't belong there.

Conclusion

The first sentence of the conclusion is too general, how much is "common"?

Overall, this is well written paper but discussion needs substantial corrections. There are spelling and grammatical errors in the manuscript (for instance "accessed" on page 7, line 125; Grammatically unsound, pg 6, 118-119; pg 7, 172-173)

Level of interest: An article whose findings are important to those with closely related research interests.

Quality of written English: Needs some language corrections before being published.

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