Reviewer's report

Title: Do dentists have better oral health compared to general population? A descriptive study of oral health status and oral health behavior in Kathmandu, Nepal

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Reviewer: Svetlana Tikhonova

Reviewer's report:

Major Compulsory Revisions

Report, study titled: ‘Do dentists have better oral health compared to general population? A descriptive study of oral health status and oral health behavior in Kathmandu, Nepal’

The study is interesting, but some points should be considered before accepting the manuscript for publication.

Title:
1. In the title the study named as ‘descriptive study’. However, the authors are posing the study hypothesis and comparing two groups of participants which is more characterize analytical study design.

Abstract:
1. Aim of the study: it seems there are two aims ‘to investigate the impact of dental education on the oral health status…..’ and ‘to compare the dental professionals’ practice of preventive dentistry and oral self-care behaviors…..’. In the first aim the population and comparison are not clear. Try to rephrase the aim and make it more concise.

2. Results: In the sentence ‘Significant differences (p<0.01) were found…..’ add MEAN number of teeth with caries (1.8 and 3.7)...

In the sentence ‘Regarding the periodontal status, 82% of dentists….’ add ‘had HIGHEST score ‘3’ (p<0.01)….’

Background:
1. The hypothesis is not related to the second study outcome ‘oral health status’.

It may be two separate hypotheses: 1. There is no difference in oral health behavior between Nepalese dentists and general population 2. There is no difference in oral health status between Nepalese dentists and general population.

2. In the aims of the study:
‘b) to objectively assess and compare….’ I would remove the word ‘objectively’ because the clinical examination of caries or periodontal disease status depends
on individual who is doing the measurement, so it is individual based.

Methods:
1. Should all dentists register in the Nepal Dental Association in the city?
2. The exclusion criteria for examined population were not mentioned.
3. Fourth paragraph: It is mentioned that 'closed end questionnaire' was used. Is there information about validity and reliability of the questionnaire? Where and how it was filled out by participants from both study groups? Were the participants informed about the study aim? Was the clinical examination performed before or after filling out the questionnaire? Was the clinical examiner aware about the results of the questionnairing?
4. Fourth paragraph:
‘The intra-oral examinations were performed by the author (MW) after calibration according to the WHO criteria for DMFT-registration [12] and CPITN-registration [13] at the department of Restorative Treatment and the Department of Periodontology at the Faculty of Dentistry, University of Bergen, Norway, before starting the study.’

Rephrase the sentence. Instead of ‘DMFT-registration’ maybe it is better to say dental caries experience assessment and instead of ‘CPITN-registration’ periodontal status assessment
5. Fifth paragraph: ‘Information about the oral hygiene behavior was assessed....’ I think it should be written oral health behaviour instead of ‘oral hygiene behavior’
6. All the information about dichotomization of variables should be in statistical analysis section.
7. Seventh paragraph. ‘The tooth with visible discoloration and with a catch during tactile sensation was reported as decayed ...’ The description of caries lesion detection is not completely mach with WHO criteria. Please check with the WHO, 1997 caries criteria, the description how caries was recorded: (‘Caries is recorded when the lesion has an unmistakable cavity, undermined enamel, or a detectable softened floor or wall’, WHO, 1997). Add information about filled and missing teeth because of caries.

Statistical analysis:
1. Please describe how sample size was calculated.
2. Describe more when each statistical test (chi-square and t-test) was used.
3. Information about dichotomisation of categorical variables should be in this section

Results:
1. Second paragraph: ‘whereas 71% of controls had a score of 3 (p<0.01)
Add a HIGHEST CPITN score of ‘3’
2. Fifth paragraph: ‘Regarding the interdental space cleaning... However these differences were not significant between the genders and among the two study groups.’ In the Table 4 it is not indicated the significance of the differences between two groups (only between genders).

3. The results about dietary habits were not reported but it was mentioned in the methods section that dietary habits were assessed.

Discussion:

1. Fifth paragraph: ‘Mongolian dentists had less number of total teeth present....’ Was the age group of the examined Mongolian dentists the same as the dentists in Nepal?

2. Fifth paragraph: ‘These differences could be related to dietary habits’. Is it only dietary habits may be responsible for the differences in caries status? What about age, socio-economic status, oral health care system, etc. ....?

3. Sixth paragraph: ‘Although more than half of the controls reported to have visited dentists before, the frequency of visit in a period of two years was low...’ I did not found the information in the results section about frequency of dental visit.

4. To the limitations of the study can be added the following:
   - not equal number of males and females in two groups (dentists and general population)
   - participants from one location only
   - if the clinical examination was performed before the questionnaires were filled out and if the participants knew about the study aim it might influence on the participants’ responses
   - the same can be addressed to the examiner who performed the clinical examination (awareness about study aim, absence of blindness of examiner)

5. Ninth paragraph: ‘The oral health status reported here in this study has been based on objective clinical examination....’ I recommend removing the word ‘objective’ because the clinical examination is far from objectivity.

**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