Reviewer's report

Title: Prevalence and factors leading to dental caries among pre-school children of Karachi, Pakistan: A cross-sectional study

Version: 1 Date: 16 March 2012

Reviewer: santosh kumar dr tadakamadla

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Major Compulsory Revisions

Abstract

1. It seems necessary to change the title and objectives of the study. One of the objectives of the study was to assess the factors leading to caries which could only be achieved using a longitudinal study design (rather reframe it as “factors related to” etc..). In addition, the other objective was to achieve the prevalence of caries while caries experience was also assessed. Moreover, the study location has to be included in the title as the target area of the study was just limited to the Saddar town.

2. The sampling procedure explained in the abstract is not clear and the sentences have to be refined in order to make it easy for the reader.

3. In results, the authors have to be cautious while using the term “association” which usually means a causal relationship.

4. Lastly, no conclusions have been included that is related to the second objective (i.e, factors related to caries). Conclusions are meant to answer the objectives projected in a study.

Introduction

1. It is well written and well references.

2. In order to frame the need for the study, it has been stated that there is scarcity of updated literature from Pakistan but it seems that there are reports which were published from 2008 and 2011 on dental caries of preschool children. Rather, it would be meaningful to state that there is no data from the study region.

3. As stated earlier, risk factors, association and factors leading to could not be identified from cross-sectional study. Hence reframe the objectives. Furthermore, the objectives stated in the text are to be similar to those in the abstract.

Methods

1. No inclusion or exclusion criteria have been provided. It is astonishing to see that all the 1000 subjects selected participated in the survey.

2. While writing sampling technique, it has been stated that at first stage preschools were identified which is not correct. At first stage, the clusters were randomly selected followed by selection of preschool in each cluster at second
3. How was inter-examiner reproducibility assessed when there was only one examiner
4. How were the poor oral hygiene status, bleeding gums and calculus assessed (any index or definition)
5. It is very necessary to explicitly write about the factors that were assessed and how were they assessed, was the interview done by the same dentist who did the clinical examination?
6. Statistical tests used and the type of data on which they were used have to be mentioned in the methods
7. A multivariate analysis with factors as independent variables and dental caries as dependent would give a better picture on the relationship of dental caries with other factors
8. No statistical test (t test) has been used to test the significance between means

Results
1. An ordinal scale (mild, moderate and severe) has been used for interpretation of the dental caries severity while the similar terms not to be seen in tables. This method of categorization has to be included in the methods. What is Chalia?
2. While writing the actual numbers in parentheses, there is no need to write n, e.g., write it as 54% (540) instead of writing 54% (540n)
3. There is no information about betel nut usage in the tables although the same has been stated in the text
4. Brushing time (morning, evening or night) has also been considered as risk factor for dental caries. I wonder, how can this be related to dental caries

Discussion
1. Discussion with results from recent studies is lacking
2. The discussion on dental caries related factors is inadequate (not all the significant findings have been discussed)
3. It has been stated that, sweetened milk was related to caries in the present study in concordance with previous ones, but nowhere in the tables or results was data on sweetened milk consumption presented

Conclusions
As suggested earlier, conclusions are meant to answer the objectives supported by the study findings. The statement “Although, in line with the WHO goal but this percentage is still high keeping in mind its detrimental consequences on children’s quality of life as well as country’s underprivileged health sector” is not required. Nevertheless, the authors can include their recommendations in the
conclusions rather than separately providing an extensive list of recommendations.

**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