Reviewer’s report

Title: Dental caries status and its associated factors among 5-year-old Hong Kong children: A cross-sectional study

Version: 0 Date: 11 Apr 2017

Reviewer: Bethy Turton

Reviewer's report:

Thank you for the opportunity to review this interesting work. This paper describes the caries experience of 5-year-old children in Hong Kong and the findings of this study show that ECC continues to be an important issue that has not yet resolved.

The methodology used in this paper is sound and the conclusions that are drawn are well founded. The main issue with this paper is around terminology and how the findings are presented.

Below I will detail points in which the phrasing and terminology could be adjusted in order to improve the readability of the paper.

ABSTRACT

Ln 46 - Do you mean "Those children with …. were at higher risk of dental caries". If you use the term 'caries risk' then it can have other implications.

BACKGROUND

Ln 52 - please define what you mean by ECC. Do you mean the presence of one or more cavitated carious lesion in a child less than 6 years of age?

line 56 - 'affect the dentition' That ECC can affect the dentition is assumed given that caries is a process which results in lesions on the teeth. I'm not sure that the sentence is needed?

Ln 56 - Please clarify what you mean by 'poor dentition' or rephrase?
METHODS

Ln 85 - strobe words should be in capitals

Ln 136 - what was ICC for examiner reliability?

RESULTS

Ln 157 - "approximately 92% of the dmft score consisted of untreated decayed teeth" - was it 92% or not?

DISCUSSION

- Please discuss more about the potential of sampling bias. How did non-responders vary from responders? Location/gender etc? Do all children in Hong Kong attend kindergarten? Or how do those who don't differ from those who do, how does this affect the chance of sampling bias?

- Please comment on the fact that nearly 10% of responses had missing data and were excluded. Were those participants with missing data significantly different in any of their demographic characteristics compared to those with complete data?

- Terminology around 'dental visit experience' - please consider using terms like dental attendance, any dental visit, or another term that would improve readability related to this point.

- The authors make some good points around the role of diet in the caries process and the need for regulation/other interventions in order to reduce caries. It would be good if the discussion was restructured so that these points could be made more succinctly rather than the relevant comments scattered throughout different paragraphs.

Ln 213 - 'refused to join' do the authors mean 'did not provide consent’

Ln 216-234 ❖ a lot of this section could be moved to methodology. Please focus the discussion on the aim of the paper which was to describe caries experience in a defined population
Ln 237 - what do you mean by oral physiology?

Lne 238 - what do you mean by a 'nursing liquid pool' Do you mean that the lower incisors are covered in saliva? Or that they are protected by the tongue

Ln 240 - not just snacking frequency but the amount of free sugars!! Also need to put it in the sociodemographic factors

Ln 243 - 'the prolonged duration of an acidic environment around the tooth surfaces leads to demineralisation and results in caries' Please re-structure this sentence in order to reflect the concept that caries is the process rather than the result. A white spot or a cavity is the result of the caries process.

Ln 259 - 'This study found that the primary caregiver affects children's oral health'. What about the primary caregiver affects the children's oral health? - Please clarify

Ln 268 - That fluoridation was listed as the reasons for differences in ECC experience among other nations is only a part of the picture. Cambodia, Mainland China, and Taiwan have vastly different Socio-economic status, diet, and nursing habits. In the case of Cambodia there is an average of 9 untreated lesions compared to 2.3 in the present study. This can not be explained by 0.5ppm water fluoridation. Please adjust the statement accordingly

CONCLUSION

The caries experience was related to their dental visit experience, parental dental knowledge levels, primary caregivers, snacking frequency and socioeconomic backgrounds. This sentence could be restructured to improve readability. The authors could say something like "The presence of cavitated lesions (or the presence of ECC) was associated with dental attendance, who the relationship of the primary care giver to the child (or the type of primary care giver), the frequency of snacking and the socioeconomic background.

REFERENCES

It can be advantageous to use references not associated with the co-authors
Reference 13 - There are any number of systematic reviews and cross-sectional studies that will support the statement made in Ln 237

Reference 14 - the results of the 2011 National Oral Health survey would support the point being made quite well.


Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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