Author's response to reviews

Title: The traditional practice of canine bud removal in the offspring of Ethiopian immigrants.

Authors:

Esti Davidovich (dr-st@012.net.il)
Eli Kooby (kooby@gmail.com)
Joseph Shapira (shapiraj@cc.huji.ac.il)
Diana Ram (dianar@ekmd.huji.ac.il)

Version: 2 Date: 4 June 2013

Author's response to reviews: see over
Dear Dr. Christopher Foote
Executive Editor,

We appreciate the positive reviews, as well as the constructive criticism of the reviewers, regarding our manuscript. We attach a revised version of our manuscript, which incorporates their comments. Below we provide a point-by-point response to each comment.

We hope that you will find the revised manuscript suitable for publication in BioMed Central.

Sincerely,
Esti Davidovich DMD

Reviewer: 1

In this cross-sectional study - and NOT a retrospective one as it is written in the Methods section – the authors aimed to compare the prevalence of missing primary canines in Israeli offspring of immigrants from Ethiopia to that of Israeli children from a similarly low socioeconomic class.

The change was made as suggested

I believe the authors have been made a major methodological error. The canine bud removal is a traditional practice in Israeli communities of Ethiopian immigrants but not in other Israeli communities. Since the congenital absence of primary canines is extremely rare, there is not a subject to be compared between the two communities. The only common parameter that the two communities share is the low socioeconomic level which has nothing to do with the above mentioned practice.

Therefore, I think that this article cannot be published in its current structure.
However, the authors could use their findings, as far as the offspring of Israeli Ethiopian immigrants are concerned only, for public oral health purposes in order to urge public authorities to take measures to end this practice.

The scope of this article was to identify and to report the prevalence of canine bud removal, which has not been recognized in developed countries like Israel. We thought that comparing children of the same socioeconomic level, from two backgrounds, was the best way to show that the absence of canines resulted from a traditional practice and not from missing teeth due to caries. It seems appropriate to compare children from the same nurseries and kindergartens, and evidently from the same socioeconomic class.

However, the authors could use their findings, as far as the offspring of Israeli Ethiopian immigrants are concerned only, for public oral health purposes in order to urge public authorities to take measures to end this practice.

We accept the suggestion of the reviewer. The data will be used for public health purposes. However, this suggestion does not contradict the methodology of this study.

Reviewer 2

1. In the abstract, instead of “similar low socioeconomic class”. I would suggest changing it to “of similar socioeconomic class”

   Changed as suggested. In addition, we emphasized that both groups of children lived in the same neighborhoods, and attended the same nursery schools and kindergartens (see Methods, p. 4).

2. The term “veteran Israeli” is confusing. Please define or use another word.

   The term “veteran” was changed to “native Israeli”

3. The Conclusion jumps from an observation (“The prevalence of missing
primary canines and dental defects was among offspring of parents who had
emigrated from Ethiopia 15-20 years earlier than among offspring of veteran
parents living in the same low socioeconomic neighborhoods”) directly to a
suggestion on how to prevent the process (“Parental education of the detrimental
consequences of canine bud removal is warranted”), without making any explicit
statements as to the conclusion.

Since there's no space in an Abstract for long explanations, we stated, without
elaboration, the summarizing conclusion of the study, together with the implications
of the study. Nevertheless, following our understanding of the reviewer's request, we
deleted the last sentence of the Abstract.

4. In the Abstract, please specify the that enamel defects were only counted if on
the adjacent teeth to the primary canines

Was added as suggested

Have the authors published the findings form this cohort anywhere else?

No, these findings were not published anywhere else

Representative images of the different classes of enamel defects should be
included.

Since we did not ask for Institutional Ethics Committee approval for taking pictures
of children's teeth, we have no images of the dental defect. We can provide images of
dental defects from textbooks if necessary

Please include data as to whether the children in the Ethiopian group were born
in Israel or Ethiopia.

Was added in the text as suggested.

Please quantify and reference the statement that “Missing canines in the primary
"dentition is a rare finding in children". Also, why “in children”? Do you expect to see this in adults?


Following the comment, we deleted "in children", since this phenomenon obviously refers to children.

1. No overview on the prevalence of canine toothbud removal is presented in the background, to re-visit in the discussion when comparing study findings to published works.

2. It would be useful to include an overview of the general and oral health consequences of this practice in the background section.

3. This would build the argument for the study, as this is currently not well presented.

The background was rewritten to include discussion of the prevalence and consequences of canine bud removal (see pp. 1-2).

4. In the methods, define 'low socioeconomic class'.

It was changed to “children living in low socioeconomic neighborhoods”.

5. The 794 children who underwent the dental examination, what percentage is this of all the children in the 21 nursery schools? Response rate?

Response rate was added to the beginning of the Results section, p. 6: "Of the 860 children who attended the participating nurseries and kindergartens, 794 (92%) were examined".

6. This analysis appears to be a sub-analysis of a larger study, any findings
worth reporting from the larger study and any references to inform the readers of the method details.

Yes, actually these are results of a larger study where dental habits, oral health and dental trauma were evaluated, and data is being processed and they have not been published yet.

The aim of the current study was to report findings regarding oral mutilation.

7. The results are currently very descriptive ... any data on the distribution of canines missing per child, for e.g. do most children with missing canines have just one missing or all four ... which canines are missing, as stated in the discussion usually lower canines buds are removed, was this the case in this study?

Data were added in the Results section, p. 6: "Among children with missing canines, both lower canines were missing in 84.4%, all four canines in 4%, and one lower canine (either right or left) in 11.6%.

8. The findings of enamel defects is confusing, and separating defects to canines and adjacent teeth would be useful, and for the latter findings only related to adjacent teeth with missing canines. Which adjacent teeth were particularly affected?

Table 3 was deleted and this information was added to the Results section, p. 6:

Among the younger children, 71 (32%) of offspring of Ethiopian parents and 5 (3.9%) of native Israelis presented with dental defects in the adjacent teeth of the missing canines (lateral or first primary molar). In the older group, the respective rates were 82 children (31.2%) of the Ethiopian group and 11 (5.8%) of the native Israeli group.

9. No gender differences are reported, and there are suggestions that gender
differences may exist, for e.g. Bataringaya et al, 2005.

There were no gender differences; this issue was addressed in the discussion

10. In the discussion the first two paragraphs make many statements with no references.

We added references to the first paragraph of the Discussion, p. 7. The second paragraph refers to the findings in the current study.

11. Not discussion on the actual eruption times of canines, the issue is referred but needs to explored further. In the younger age group, in both groups, how many of the missing canines may be unerupted? What percentage of the missing canines may be due to dental caries? It is assumed that all the missing canines are due to the cultural practice of toothbud removal. While this will not change the significant differences between the two cultural groups, it is important to consider.

As we wrote in the Discussion, p. 7: "The occurrence, though infrequent, of missing canines in the native Israeli population may be due to dental trauma or to hereditary factors. Delay in tooth eruption may also be a factor, as evident by the increased prevalence of missing canines among younger than older offspring of native Israelis. We have no reason to expect that missing canines due to the above reasons would be different in the Ethiopian population.

12. Are there any reports / data on the consequences of this practice in Israel?

Any deaths?

No deaths have been reported in Israel

13. Currently a significant part (almost entire page 2) of the discussion provides background information on enamel defects including hypoplasia and opacities .. this could be reduced to allow opportunity to discuss the issues of canine tooth bud removal. for e.g, the issue of parental education is mentioned at the end but this is major issue related to the cultural practices, and how to change very embedded practices. It would be useful for the researchers to suggest how best to change this practice. For e.g. the paper by Jamieson LM, 2005 attempts to inform this. Cultural practices, and they apply to all societies in the world, are
complex issues and extremely difficult to change, even if logic shows clearly that the practice is detrimental. Our role as researchers is to inform this change. Any suggestions from the researchers?

As suggested, we shortened the text about hypoplasia and opacities.

We were not able to locate the article by Jamieson 2005 that is mentioned. However, on page 9 of the Discussion we added a citation to a recently published methods article of an intervention for oral health (co-authored by Jamieson): Parker EJ, Misan G, Chong A, Mills H, Roberts-Thomson K, Horowitz AM, Jamieson LM. An oral health literacy intervention for indigenous adults in a rural setting in Australia. BMC Public Health. 2012 Jun 20;12:461.

14. The term 'racial heritage' needs to be explained, used in the discussion.

We deleted this term.

15. Table 1 adds little value that is not already in the text … perhaps present by gender.

We deleted this table

16. Table 3, the enamel defects … separate for canines and adjacent teeth … the missing canine data is repeated, already presented in Table 2.

Table 3 is now deleted.