Author's response to reviews

Title: Cross-cultural validity of a dietary questionnaire for studies of dental caries risk in Japanese

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Point-by-Point Responses to Reviewer 1

1) Page 4 line 6: It is not necessary to state that the Vipeholm study is controversial. It is not controversial from a scientific point of view and it was ethically correct at the time it was done. Please delete the word.

The word was deleted as requested.

2) Page 6 line 15. mutans streptococci (i.e. no capital M or S). Look for this throughout the paper.

The capitalization was changed throughout the paper as suggested.

3) Page 9 line 19. The number 400 does not agree with what is stated earlier (355 pregnant women and 25 subjects in the additional cohort).

The numbers were rechecked and clarified in the text.

4) Page 11 line 1. Again the numbers do not fit with the description in the methods Section

The numbers were rechecked and clarified in the text.

5) Page 11 line 18 Add means for pregnant women if that is correct.

We are uncertain what the reviewer is requesting.

6) Page 12 line 7. I assume the journal style says 0.7 not .7.

All were changed as the reviewer suggested.

7) Page 12 line 7. What is “the larger sample”. This should be told here.

The word “the larger sample” cannot be found in Page 12 line 7. The text has been clarified.

8) Page 13 line 16 This is not true in all populations today. The selected
reference seems to be in a Japanese population, which is optimal for the study. Add this information to avoid an incorrect statement.

The text has been revised, and a reference [24] added, in which subjects were drawn from the Swedish population;

Original: “The Dentocult SM measure has been shown to be a reasonable surrogate for dental caries activity [23].”

Changed: “The Dentocult SM measure has been shown to be a reasonable surrogate for dental caries [23, 24].”

9) Page 18 line 17 This is my strongest criticism. The authors have not studied caries activity, only a risk factor. The text is not only wrong but strongly misleading.

The text has been revised.

Original: “The questionnaire containing food items, most of which had derived from USA, reflected caries activity among Japanese. The finding implies that this questionnaire has potential to compare the caries activity among the other cultures where those foods were spread.”

Changed: “The questionnaire containing food items, most of which had derived from USA, reflected caries risk indicator among Japanese. The finding implies that this questionnaire has potential to compare the caries risk levels among the other cultures where these foods have become part of the diet.”

10) Page 14 line 14 The authors disregard the genetic aspect of acquisition of mutans streptococci. This is just as important as any hormonal change.

The text has been modified to include this factor.

11) Page 14 line 17 (and Page 13 line 11). I agree that the reliability is high (which is a common finding for FFQs) but the relative validity is not high, but rather average or moderate (and in line with most validity studies using
biomarkers). This is also what is seen in Figure 3.

The reviewer unintentionally misrepresents the text. The word "high" was not used with regard to validity. The text says "good", which is a reasonable interpretation.

12) I suggest Figure 1 is changed into a Supplementary file. It cannot be understood by most readers and is not important for result assessment.

We respectfully disagree. One of the strongest attributes of an online publication is the potential to include the actual instrument so others can use it.