Author's response to reviews

**Title:** Prediction of width of un-erupted incisors, canines and premolars in a Ugandan population: a cross sectional study

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**Author's response to reviews:** see over
To the Editor
BMC Oral Heath

Re: Response to the reviewer’s comments

We are grateful for your comments aimed at improving the readability. Generally, we have made some minor changes taking into consideration of the reviewers’ comments. The changes in the manuscript have been tracked.

Reviewer’s report:
Major compulsory revisions:
1 Firstly, the prediction tables studied in this paper were by Robert Edison MOYERS. Thus, the possessive would be MOYERS’. I agree so I have made changes from (Moyer’s) to (Moyers’) throughout the write up.

2 Secondly, in Tables 3 and 4, it is not stated what Moyers percentile is being used in the comparison? 50th? 75th? Table 3: Percentiles from 5 to 95 have been used and are shown in the first column. The column of P values shows that the mean deference between the predicted buccal segments at the 75 percentile in girls and the 65 percentile in boys were not statistically significant. I have bolded these in the table but also modified the heading of table 3

Table 4: Percentiles from 5 to 95 have been used and are shown in the first column. The column of P values shows that the mean deference between the predicted buccal segments at the 75 & 95 percentile in girls and the 75 percentile in boys were not statistically significant I have bolded these in the table but also modified the heading of the table 4

Thirdly, the so-called "Tanaka-Johnston" method is usually applied as quick approximation to Moyers' 75th percentile: half the lower incisor widths plus 11 for the upper 345; half the lower incisor widths plus 10.5 for the lower 345. It is not common to employ their actual regression equations. Thus in Table 5, it is not clear which Tanaka-Johnston percentile has been used in the comparisons. The 50th percentile (the one that the equations would spit out), the 75th (the one both Moyers and Tanaka and Johnston recommend using), or the 75th as estimated from the 11/10.5 approximation. Further the title of Table 5 is unclear: "regression values of the actual sum" is confusing; regression values and actual values are different, even in very good predictions.

I have improved the heading to show that we used the half the lower incisor widths plus 11 for the upper 345 or half the lower incisor widths plus 10.5 for the lower 345 in the computations.

Lastly, it should be noted that this investigation is easy to do and has been done for almost every population, especially those in the Third World. To my recollection, most of these studies have shown a correlation between the lower incisors and the unerupted buccal segments of about 0.65. In contrast, this paper reports correlation coefficients that are much higher (~0.8). It seems to me that
the authors must comment on this discrepancy and its potential genetic basis. We had already alluded to the racial/ethnic influence on the tooth sizes (see the Discussion section page 7, lines 1-3 and page 9 last sentence). We have again emphasized the genetic influence (see Discussion section, page 8, line 5) in view of the present study. We have also changed the references to reflect the BMC format.

I have tranposed the 2nd last sentence of M&M (Study population section, page 4) to the Measurement of tooth mesio-distal width section, line 4, page 5).

**Level of interest:** An article of limited interest  
**Quality of written English:** Acceptable  
**Statistical review:** Yes, and I have assessed the statistics in my report.  
**Declaration of competing interests:**  
I declare that I have no competing interests

Your truly

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