Author’s response to reviews

Title: ASSOCIATION BETWEEN DEVELOPMENTAL DENTAL ANOMALIES, EARLY CHILDHOOD CARIES AND ORAL HYGIENE STATUS OF 3-5-YEAR-OLD CHILDREN IN ILE-IFE, NIGERIA

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Azza A. El-Housseiny, BDS, MSc, PhD (Reviewer 2): This manuscript entitled "Association between Developmental Dental Anomalies, early childhood caries and oral Hygiene status of 3-5-year-old children in Ile-Ife, Nigeria" is aimed to find a relationship between dental anomalies and some oral health parameters. It is well written, however, there are some short comings that need to be addressed by the authors as follows.

In general there are few language errors that needs the attention of the authors. WE THANK THE REVIEWER FOR THE COMMENTS. WE HAVE READ THROUGH CAREFULLY AGAIN AND EDITED SOME LANGUAGE ERRORS OBSERVED.

The authors did not write the type of the study design, either in title, abstract or methods. It would be better if the authors followed the STROBE guidelines for reporting their study. WE THANK THE REVIEWER FOR THE COMMENTS. WE HAVE INCLUDED INFORMATION THAT THE STUDY IS A CROSS SECTIONAL STUDY IN THE ABSTRACT AND METHOD SECTION. WE HAVE LEFT THE TITLE UNALTERED FOR THE SAKE OF BREVITY AS THE TITLE INDICATED WE DETERMINED ASSOCIATIONS.

Aim: is not clear in the text. WE THANK THE REVIEWER FOR HIGHLIGHTING THIS. WE HAVE INCLUDED THE AIM OF THE STUDY IN THE INTRODUCTION SECTION OF THE MANUSCRIPT.

Methods:
- Sample size calculation is not clear. THANKS FOR RAISING THIS. WE HAVE INCLUDED INFORMATION ON HOW THE SAMPLE SIZE WAS CALCULATED. WE USED THE FORMULA SUGGESTED BY ARAOYE FOR CROSS SECTIONAL STUDIES IN POPULATIONS GREATER THAN 10,000 BY ARAOYE. THE SAMPLE SIZE WAS ESTIMATED USING THE PREVALENCE OF ECC OBTAINED IN A PREVIOUS STUDY CONDUCTED IN THE ENVIRONMENT. THE
PREVALENCE USED TO CALCULATE THE SAMPLE SIZE WAS 6.6%

- No inclusion or exclusion criteria. THANKS FOR THE COMMENT. WE HAVE INCLUDED THIS DETAIL IN THE SECTION OF THE METHODOLOGY ON STUDY POPULATION. WE WROTE: Only children who were below the age of 6 years, who were living with a caregiver, who were present at the time of the survey and for whom parental consent for study participation was obtained, were recruited for the study. Children who had chronic medical conditions that required prolonged use of sweetened medications and those with medical conditions that increased their risk for caries were excluded from the study.

- Page 5 lines 4-10; The simplified oral hygiene index assess facial surfaces of the three upper teeth and the lower incisor. While for the two lower molars the lingual surfaces only are examined, not as written by the authors. More details are needed on how they calculated the scores. Did they calculate debris only or debris and calculus. In addition what is the reference they used to classify oral hygiene. According to the American Academy of Pediatric Dentistry for debris assessing scores ranges from 0-3, good =0.3-0.6, fair = 0.7-1.8 and poor = 1.9-3.0. THANKS FOR THE COMMENTS. WE HAVE INCLUDED DETAILS ON HOW WE ASSESSED BOTH THE ORAL HYGIENE STATUS AND THE ECC. FOR THE STUDY WE COMPUTED BOTH THE DEBRIS AND CALCULUS SCORE. WE ARE INCLUDED ASSESSMENT FOR CALCULUS AS WE COULD NOT EXCLUDE THIS IN THE POPULATION WE STUDIED – VERY POOR ORAL HYGIENE IS POSSIBLE AS WE DO STILL SEE CASES OF ANUG AND CANCRUM ORIS.

- Authors did not explain why they selected Poisson regression in data analysis which may not be familiar to many readers. WE HAVE INCLUDED THIS INFORMATION IN THE MANUSCRIPT. WE HAVE INDICATED WHY WE CHOSE TO USE THE POISSON REGRESSION AS WE WANTED TO AVOID OVER-ESTIMATION OF THE PR WHICH IS POSSIBLE IF WE USED A LOGISTIC REGRESSION MODEL WHERE ADJUSTMENTS ARE PLANNED.

Results:
- In page 4 line 13 the minimum sample size is 1440, while data analysis was only for 918. On what bases they did sample size and then did not fulfill it. Did the authors calculate the power for the analyzed number to be satisfied with the collected number. WE HAVE IMPROVED THE CLARITY OF THE INFORMATION. WE ANALYSED THE DATA FROM A PRIMARY STUDY THAT HAD A SAMPLE SIZE OF 1440 CHILDREN 0-5 YEARS OLD. FOR THIS STUDY, WE ONLY EXTRACTED THE DATA FOR CHILDREN 3-5 YEARS OLD. THE SAMPLE SIZE FOR THAT IS 918. WE HAVE INCLUDED INFORMATION IN THE STUDY LIMITATION THAT THIS WAS A SECONDARY STUDY. THE 918 IS MORE THAN ENOUGH SAMPLE SIZE TO POWER THE STUDY USING A PREVALENCE OF 26.6% OF DDA IN A PRIOR STUDY CONDUCTED IN THE STUDY ENVIRONMENT. WE HAVE HIGHLIGHTED THIS IN THE STUDY LIMITATION

- The authors are confusing the readers in page 5 line 57 to page 6 line 12. They wrote that ECC was only present in children with hypoplasia and hypomineralized .... While table 2 shows that ECC is absent in 3.7 % and 1.8% respectively of children with these conditions. THANKS FOR HIGHLIGHTING THIS ERROR IN OUR STATEMENT. WE HAVE REVISED THE STATEMENT TO REFLECT THE TRUE STATUS. WE WROTE: ECC WAS ONLY IDENTIFIED IN CHILDREN WITH HYPOPLASIA AND HYPMINERALIZED.....

- Table 3: it would be better if the authors wrote the abbreviation in full under the table. WE HAVE USED THE FULL WORDS RATHER THAN THE ABBREVIATIONS
Conclusion: should be based on the results not on previous studies. WE HAVE REVISED THIS IN THE ABSTRACT AND THE MAIN MANUSCRIPT. THANKS FOR IDENTIFYING THIS.