Reviewer's report

**Title:** Feeding and smoking habits as cumulative risk factors for early childhood caries in toddlers, after adjustment for several behavioral determinants: a retrospective study.

**Version:** 4  **Date:** 28 November 2013

**Reviewer:** Gerardo Maupome

**Reviewer's report:**

There still are issues with the language and the organization of the manuscript but these aspects have taken a secondary level of importance in the version submitted.

I am recommending rejection of this manuscript based on the evolution of the analyses portrayed during the different versions I have evaluated.

In the first version the authors failed to take into account the role of socio-economic status to moderate smoking and breastfeeding. The limited attention paid to SES suggested it was a strong variable.

In the second version the authors examined the role of SES and found that a strong effect for breastfeeding, smoking and ECC across three levels of SES. Against statistical logic, they decided to to conduct further analyses for breastfeeding and smoking within each one of the levels of SES. They underestimated by and large the effect of SES. I asked to have a more integrative approach to tease out the effects of the various factors, not only SES.

In the present version, the analyses undertaken are confused and confusing. The authors added a Table 4, which is not presented in results nor examined in the Discussion. While Table 3 is relatively unclear in its presentation, the statistical details pertaining to Table 4 are non-existent. In the text, Table 4 is meant to be an analysis of data without outliers, but there is no explanation for the astronomical -- a word I don't use very often in this context -- odds ratio values. Would any epidemiologist or statistician be suspicious of the rationale for analyses that render an OR = 188,162, with 95% CI ranging from 4,915 to 7,202,820? Without further explanation or details, Table 4 is impossible to interpret. The authors apparently glossed over this conundrum by simply not talking about Table 4 at all.

Given the clarity of analyses and results, and the rather confused presentation of results and even the conclusion, I would recommend rejection and have the authors going to the drawing board and deciding clearly, with the help of a statistician, what is it they want to establish in the manuscript.

**Level of interest:** An article of insufficient interest to warrant publication in a scientific/medical journal
**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare I have no competing interests.