Reviewer's report

Title: Early childhood caries and its relationship with perinatal, socioeconomic and nutritional risks: a cross-sectional study

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Reviewer: Patrícia Corrêa-Faria

Reviewer's report:

I appreciate the opportunity to review the manuscript "Early childhood caries and its relationship with perinatal, socioeconomic and nutritional risks: a cross-sectional study". The manuscript is interesting and important to address the prevalence and factors associated with early childhood caries, since it is a disease with high prevalence among Brazilian children and adversely affects the quality of life of these children and their families.

Despite the relevance of the topic, the manuscript needs modifications:

Abstract:

The objective of the study needs to be modified. I suggest changing "This study aimed to assess the prevalence of early childhood (ECC), perinatal factors (gestational age, birth weight and teenage pregnancy), family income and nutritional risk in children" to "this study aimed to assess the prevalence of early childhood caries (ECC) and investigate the association with perinatal factors (gestational age, birth weight and teenage pregnancy), family income and nutritional status in children."

Method: the used statistical tests should be added

Results: Add the results of the chi-square

Conclusion: Add information on the prevalence of ECC (was high or low?)

Keywords: I suggest that words indexed in MeSH are used.

Introduction:

1st paragraph: Add the acronym for Early Childhood Caries ECC. The symbol can be used throughout the text from the introduction. The first sentence is unnecessary. The text could already start tackling tooth decay.

2nd paragraph: I suggest in this paragraph factors associated with ECC are presented. What's in the literature on the association between ECC and perinatal factors, family income and nutritional risk?

You must add a rationale for conducting this study. There is little evidence in the literature? What the article brings novelty to the literature?

Methods:

Because calibration was performed? Through imaging, clinical examination?

Explain how the pilot study was conducted. Children who participated in the pilot
study were also part of the main sample? Where the pilot study was conducted?
As clinical examinations were performed? Explain whether it was with the help of
natural or artificial light, where it was held, used instruments (dental mirror,
probe, wooden spatula), if there were teeth cleaning prior to inspection, position
of the child and the examiner (eg child sitting front of the examiner).
The article cited as a reference in the diagnosis of ECC is interesting and makes
clear how the diagnosis should be performed. Suggest that the authors explain
in more detail how the ECC diagnosis was made, and the categorization data
analysis.
It was mentioned that children with syndromes with impact in the oral cavity were
excluded. What are these syndromes? Some kid had these syndromes?
The correct term is nutritional risk or nutritional status? Once it was verified a
normal nutritional status and nutritional risk not only the right would not say it was
rated the nutritional status?
There calibration of instruments (balance)? Who was the weighing of children?
There was training before?
The 7th paragraph needs to be rewritten in order to make the information clearer.
Through interviews (where the interview was conducted?) With parents,
information on family income were obtained. Income was informed considering
the Brazilian minimum wage (place value converted into dollars) and
categorized into (cup shape categorization for statistical analysis). The
information on perinatal factors were obtained through consultation with child
immunization card and medical records... Following can be explained ratings for
these factors.
The 8th paragraph needs to be integrated into the 7th.
Paragraph on the statistical analysis suggest modification of the explanation for
the use of Poisson regression Poisson regression was performed for the analysis
of factors associated with ECC and verified the magnitude of the association of
each factor with ECC.
Results:
There were losses?
Add the p values of the chi-square test in the text.
Table 1: Table 1 values of PR and 95% CI were added. These results are the
Poisson regression? Replace the p values of the chi-square test (p < or p >
0.05) with the actual values that appeared in the tests.
Once the nutritional risk is an ordinal categorical variable, which was not used by
the chi-square test for linear trend?
Discussion:
In the discussion should be shown the methodological differences between this
study and others already published. Methodological differences may limit
comparisons. Notice for example, if the categorization of the variables is similar
to or different from other studies, there are differences in study designs.
The cross-sectional study allows us to observe the association between the variables and to estimate risk. This aspect needs to be reviewed in the discussion.

What are the limitations of the study? And what are the advantages?

Conclusion:

The conclusion, both in the text and in the abstract must be corrected. Higher prevalence of ECC among children with low birth weight was observed. There was no significant association with prematurity, as described in the conclusion.

Consider whether the rules are ordered Bullet Points. In one of the bullet points is spoken of risk factors and determinants. This nomenclature needs to be checked.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

'I declare that I have no competing interests'