Reviewer's report

Title: Longitudinal study of habits leading to malocclusion development in childhood

Version: 1 Date: 27 February 2014

Reviewer: Luciana Sanglard

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Major Compulsory Revisions

Abstract

1. The sentence “Home visits for interviews with the mothers were made monthly during pregnancy until 6th month after childbirth” must be removed. The results of this analysis were not shown in this article.

2. The sentence “At the 30th month, clinical examinations were performed for overjet, overbite and posterior crossbite” must be completed, once the clinical exams were performed in the three periods 12, 18 and 30 months (as shown in table 3) and not only in the 30th month.

3. The sentence Breastfeeding had a protective effect for outcomes overjet and open bite” must be excluded from the results and conclusion. The table 3 that breastfeeding had significant statistic association (p<0.05) with overjet and open bite. It is not totally clear, but seems the association is clear, as analyzed in further data. Thus, who was breastfed had overjet and open bite. Therefore, breastfeeding was not protective, in the contrary.

Data Collection

4. Page 5 – Why choosing the 2 hour time when considering the usage of the pacifier and thumb sucking? Was it somehow indicated to do so by any of the bibliographic references? Did any other study use the same methodology? If the answer is yes, please quote them. It seems very difficult, inconsistent to quantify the suction time solely based on the mother’s reports, mostly because it is an intermittent habit (the child does it and interrupts it many times during the day) and it depends on the mother’s observation and memory to be able to quantify the time.

Results

5. Table 3 shows that breastfeeding had a significant statistical association (p<0.05) with overjet and open bite. Therefore, who was breastfed had overjet (at 12, 18 and 30 months) and open bite (at 12 and 18 months). Therefore, breastfeeding was not protective, but the opposite. Probably by the association of other habits (not clear yet). Although the number of breastfed children decrease overtime (Table 1), it is not possible to affirm bigger prevalence of overjet and
open bite, but in the contrary, an association between breastfeeding and malocclusions took place.

Discussion

6. Page 9 – The sentence “In this research, breastfeeding had a protective effect since children at 12 (p<0.0001), 18 (p<0.0001) and 30 (p=0.01) months of age, who were breastfed at least once a day, had less overjet. A similar relation between breastfeeding and open bite was observed at 12 (p=0.0002), 18 (p=0.005) and 30 (p=0.01) months” needs to be reviewed by the authors. As said beforehand, the table does not show the protective effect of breastfeeding, in this population, in the contrary, it shows an association with overjet and open bite, in the three periods of the paper (12, 18 and 30 months). The fact of breastfeeding did not avoid the children having malocclusion, possibly by the association with other habits. It could be interesting to observe the association between three habits (thumb suction, pacifier and bottle) and breastfeeding.

Conclusions

7. The sentence “breastfeeding had a protective effect on development of overjet and open bite” must be removed.

Minor Essential Revisions

Abstract

In the results presentation, the correlation with the periods of time was not shown. Inform the association between habits and malocclusion in the respective studies.

Background

In page 3 it is mentioned “there are few studies reporting the effects of bottle feeding on the orofacial development of children together with breastfeeding and other habits [12]”, which the paper is from 2006. However, a research made in February/2014, at pub med with the keywords “bottle feeding and malocclusion” showed 62 papers about the subject. Check the need to update the information or remove sentence.

Data Collection

Modify the sentence “Intra-oral examinations were performed on children at the 30th month of age to detect signs of malocclusion” adding the times (ages) of 12 and 18 months.

Results

Page 7 – In table 2, add the diagnosis in 12 and 18 months, whereas is possible to observe that the exams were performed in those other times, as shown on Table 3.

Discussion
Page 7 - To the sentence “Moreover, it was observed that, once acquired, habits remained (Table 1)”, should be added “for the majority of children”, since some dropped thumb suction and pacifier at 30 months. It is not possible to affirm that there same children continued or acquired the habit of bottle feeding. It is not clear.

The sentence “The most prevalent habits were bottle feeding (96.25% at 30 months) and pacifier use (42.5% at 12 months)” should be completed like this: “The most prevalent in the three periods evaluated (12, 18 and 30 months) was the bottle (87.50%; 90.0% and 96.5%, respectively), followed by pacifier with 42.50% at 12 months and 38.75% at 18 and 30 months.

Discretionary Revisions

Abstract:

Data Collection

Page 4 – the sentence “Data and results on sucking habits in this population under the age of 12 months were reported in a previous paper [15]” is not necessary (has no real function) at this part of the paper. However, it should be shown at the Introduction and/or Discussion, adding the respective analyses results at this time.

Results

Page 6 – The description of the results preceding table 1 was not made, but on table 3 instead. I suggest to report these results and move the sentence “Breastfeeding decreased throughout the analysis (Table 1)”, putting it close to table 1.

Discussion

Page 8 – The sentence “Pacifier sucking at 12 (p<0.0001), 18 (p<0.0001) and 30 months of age (p<0.0001) was associated with overjet; and at 30 months only, with overbite (p=0.002). Children with this habit at 12 (p=0.0003), 18 (p=0.0003) and 30 (p<0.0001) months had also more open bite cases” should be rephrased, summarized in favor of the understanding. This way, “pacifier sucking at 12, 18 e 30 months was associated with overjet (p<0.0001) and open bite (p = 0.0003; p=0.0003 e p<0.0001, respectively, in each period). And at 30 months was observed association with over bite too (p=0.002).

Level of interest: An article whose findings are important to those with closely related research interests

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

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.
Declaration of competing interests:

'I declare that I have no competing interests'