**Reviewer's report**

**Title:** Effectiveness of the bucco-lingual technique within a school-based supervised toothbrushing program on preventing caries: a randomized controlled trial

**Version:** 2  **Date:** 20 September 2010

**Reviewer:** Dr. Roswitha Heinrich-Weltzien

**Reviewer's report:**

When assessing the work, please consider the following points:

1. Is the question posed by the authors well defined?  
   Yes

2. Are the methods appropriate and well described?  
   No, more detailed information is needed. (see below)

3. Are the data sound?  
   No, more detailed data are needed. (see below)

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?  
   To facilitate the understanding of the study structure and flow the chapter “Method” should be divided into subsections. (see below)

5. Are the discussion and conclusions well balanced and adequately supported by the data?  
   It is recommended that the discussion and conclusions should also consider the remarks and questions of the reviewer.

6. Are limitations of the work clearly stated?  
   Yes, but further limitations should be considered. (see below).

7. Do the authors clearly acknowledge any previous research, both published and unpublished?  
   Yes

8. Do the title and abstract accurately convey what has been found?  
   Yes

9. Is the writing acceptable?  
   No, the manuscript should be extensively edited.

**Level of interest:** An article of outstanding merit and interest in its field

**Quality of written English:** Acceptable
Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

Reviewer’s report on the manuscript “Effectiveness of the bucco-lingual technique within a school-based, supervised toothbrushing program on preventing caries: a randomized controlled trial”

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Reviewer’s report

Major Compulsory Revisions
To Methods
• The chapter “Method” should be divided into subsections. The following subsections are recommended:
a. General background

b. Sampling and study design (including the flowchart of the study population):
The authors should describe in more detail how the children in the control group (n=130) and test group (n=154) were recruited from the total population. Furthermore, the connection with the examinations 2 to 4 and the follow-ups is not explained. In place of the term “semester” the authors should use the term “month” to describe the follow-up time. To improve understanding of the study design the author should include the drop-out rate of the participants in each follow-up. In the present manuscript the following statements in the chapter “Results” are not understandable: -“The loss of eligible participants was noted in the first and the third follow-ups. The rates were 3.3% and 2.7% respectively.” –“Out of the participants, 130 children had one follow-up, 68 had two and 86 had three follow-ups comprising 524 measurements.”

c. In light of the results and conclusions of this study it is further important to know if all children of the control or test group participated in each supervised tooth-brushing or professional cross-brushing procedure.

d. Oral examination: (Did the children brush their teeth under supervision of the dental assistants prior to the clinical examinations?)

e. Ethical approval and parental consent

f. Statistical methods

To “Results”
• In Table 1 the authors presented, among other things, data on skin colour (mixed and other), but they did not explain the importance of this variable anywhere in the manuscript. Since the professional cross-brushing technique for caries prevention on the first molars was significantly more effective in boys than in girls, it is recommended to also present gender-related baseline data of age, caries prevalence and caries experience (dmft values).
• Drop-out data should be understandable from the study flowchart.
• Are there differences in the participation rate of boys and girls with respect to the professional cross-brushing technique of the first molars?

To “Discussion”
The author should discuss the problem of children availability during the different supervised tooth-brushing procedures supervised by the dental assistants.

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

Quality of written English
- Not suitable for publication unless extensively edited

Statistical review
Is it essential that this manuscript be seen by an expert statistician?
- Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests
'I declare that I have no competing interests'.