Reviewer’s report

Title: Study Protocol of a Randomized Controlled Trial to Test the Effect of a Smartphone Application on Oral-health behavior and Oral Hygiene in Adolescents with Fixed Orthodontic Appliances.

Version: 1 Date: 04 Sep 2017

Reviewer: Fernando Hugo

Reviewer’s report:

As this is a reviewed version of the manuscript, I have only a few questions that are presented below.

This is a protocol of a trial to test the effectiveness of a Smartphone App on Oral Health Behaviors and Oral Hygiene of Adolescents

The abstract is well written and has all the information needed. My only recommendation is that authors include information about the intervention that will be delivered to participants of the control group.

Page 6, Line 19. Please, describe what constitutes 'care as usual' in an Orthodontics Clinic.

Page 6, Line 58. Why only 12 weeks of follow-up, if a treatment with fixed orthodontic appliance lasts for a much longer period?

Page 7, Line 4. The number of participants is different from the abstract.

Page 12, Last paragraph. Did author intend to perform any psychometric analysis of the proposed psychosocial factors related to oral health scale that includes a number of questions? This is an important issue, since authors will generate a score based on the sum of the items. In addition, what is the score range? And what is its meaning?

Page 13, Line 11. Why authors will assess plaque only on index teeth? There is no reason for that, as white spot lesions are not the only oral health outcome of interest in adolescents using orthodontic appliances. What about gingival inflammation? Lower and Upper First premolar, canine and incisors?

How authors will evaluate compliance of the control group to care as usual - recommendations?

Page 15, Line 34. Why information of importance to adherence will be given only to participants of the intervention group? This may lead to differences that are due not only to the app.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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