Reviewer's report

Title: Effectiveness of smoking cessation in a dentistry setting in Sweden - a randomized trial

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Reviewer: Charlotta Pisinger

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Eva Nohlert, Åke Tegelberg, Per Tillgren, Pia Johansson, Andreas Rosenblad and Asgeir R Helgason BMC Public Health Effectiveness of smoking cessation in a dentistry setting in Sweden - a randomized trial

1. Is the question posed by the authors well defined?
Yes, the authors want to compare a high intensity with a low intensity smoking cessation intervention in dentistry setting.

2. Are the methods appropriate and well described?
Overall, yes. I have suggestions for better analyses and presentations

3. Are the data sound?
It seems so

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
Partly. Corrections are needed.

5. Are the discussion and conclusions well balanced and adequately supported by the data?
Partly

6. Are limitations of the work clearly stated?
Not fully

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?
Yes

8. Do the title and abstract accurately convey what has been found?
Maybe, this title would be better?
Comparison of a high intensity and a low intensity smoking cessation intervention in a dentistry setting in Sweden - a randomized trial.

9. Is the writing acceptable?
Generally, yes

The topic of the manuscript is both interesting and important. Dentistry is a perfect setting for talking smoking with the patients and recruiting smokers to smoking cessation interventions but very few dentists do so.

The design is good, power-calculations have been done and the intervention seems well conducted.

I can recommend publication with major revision.

Minor revision:

Page 3: the first sentence: Even though Sweden is one of the leading high income countries in reducing… (end with)... in Sweden.Page 3: throughout their regular recall system -> because of their regular recall system

Page 3: possibilities of assisting -> opportunity of assisting

Page 3: the county of Västmanlan, Sweden with 250 000 inhabitants (it is not Sweden who has so few inhabitants) -> the Swedish county of Västmanlan, with 250 000 inhabitants

Page 4: low/high treatment intensity -> low/high intensity treatment (should be renamed: LIT and HIT)

Page 4: HTI: is it an individual or group based program?

Page 5: fill in the questionnaire -> complete the questionnaire

Page 5: including the three abstinence and intent to quit questions. What are these questions? Should be described.

Page 5: Was the questionnaire validated?

Page 6: a subgroup of participants in the HTI…it is not correct talking about a subgroup. You could write: 29% of the participants in the HIT group relapsed and did not complete the program.

Page 6: why was it not possible to get information about participants not completing the LTI (LIT) program?

Page 6/7: statistics: did you use SPSS or SAS for analyses? Level of significance? Model control? Did you use forward/backward or other selection in the multiple analyses?

Page 8: 83% of the smokers accepted the smoking cessation intervention. Who was invited to take part in the trial? All smokers identified? Or only smokers motivated to quit within near future? If it is all smokers it is a remarkable finding and should be highlighted in the discussion and abstract! Usually only about 10-15% are in the preparation stage. It would be an extremely important message that so many smokers accept to try to quit by use of a pro-active recruitment strategy.

Page 9: it can be discussed whether snus should be included in the analyses of effect. There is a difference in snus-use in HIT and LIT and this may influence
the quit rates. However, one could argue that the HIT design promotes snus use more, and therefore snus is a part of the intervention.

When writing that there is no difference, how did you measure this? Use: yes/no? It is very difficult to measure correct use and how long time they used it (which can influence outcome).

Page 11: correct the text when new analyses have been performed. Also, delete the part stating that LIT had no effect of its own.

Page 12: again remove the part stating that the LIT did not have any effect on its own.

Page 13: we can not explain why people with higher levels of education gained more from the HTI protocol (referring to table 3)... Maybe it is designed of people with higher education for people with higher education? It is well known that people with higher education have higher success rates. However, in table 4, education was not significant? I would not present table 3, it is confusing.

Table 1: the p-values (difference between HIT and LIT) should be presented. In a smoking cessation intervention we suppose that all participants are daily smokers of at least 1 cigarette daily. It is strange to have a 0-9 cigarettes/day-group. You need to explain this. Eventually, those with 0 should be excluded as they had already quit.

Major revision:

Page 8/9/10: the presentation of results. The main question is: does it work? Is high intensity (HIT) better than low intensity (LIT)? It is important to include all smokers from baseline, as there is a high drop out rate (relapses) in the HIT. These ‘intention-to-treat’ analyses should be adjusted for sex, age, education, number of cigarettes (if you have Fagerström may it is a better measure to adjust for), other support, (snus use?), and depressive mood (present only effect of HIT compared with LIT). It is of no interest to present the much selected participants who successfully completed the HIT.

The second result that interests us is: Are there any predictors of success in the HIT and LIT respectively? These multivariate regression analyses should also include all smokers from baseline. You can either choose to show all variables included, or maybe better, only show factors of importance/significance. State clearly how you included the variables.

Please, make these new analyses and present them in two new tables (instead of table 2, 3 and 4).

In the text you can present how many reported to have quit and compare group HIT with LIT (simple non-adjusted %). HIT: 35/146=24.0% vs. LIT: 24/148=16.2%.

Page 9: the LTI program did not appear to have any long term effect of its own. How can you conclude this? 16% of all baseline smokers were abstinent after one year. This is a very high long term cessation rate for a low intensity intervention! If the 30-min counselling makes the smokers seek support, the LIT
has an effect, as the smokers are told to seek support. Those who did not seek support were all relapers. Maybe they did not seek support because they smoked or did not really want to quit. Also, support is NS in table 4.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

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