Reviewer’s report

Title: Tobacco use and caries risk among adolescents - a longitudinal study

Version: 1 Date: 1 May 2013

Reviewer: Sonica Singhal

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Title: Tobacco use and caries risk among adolescents – a longitudinal study

Comments: Role of tobacco as a risk factor/ risk indicator for dental caries is still not very clear and requires well designed studies. This study is a good attempt to assess the association of tobacco and dental caries among adolescents using a longitudinal study design. However, before accepting this manuscript for publication, I would recommend some revisions.

Major compulsory revisions:

1) In this longitudinal study, adolescents who started using tobacco at any time after the study began were considered ever users. Increment of DMFS attributed to an ever user of long time vs. ever user of short time cannot be considered the same. This can be handled in two ways:

a) Consider ever users and never users at baseline and then assess change in DMFS of both groups after four years. Do not consider adolescents, who started using tobacco anytime after the initiation of the study, in final assessment. This way the exposure will be of considerable time for dental caries to be attributed to it.

b) If the number of adolescents who started using tobacco after being enrolled in the study is very small, then present those numbers. In table 1, construct four columns with absolute number of ever and never users for each year (baseline, 2nd year, 3rd year, and 4th year). Mention this as limitation and build an argument that such small numbers will not affect the outcomes.

2) Previous studies suggest that the prevalence of snus is more common in the North as compared to the South of Sweden. Halland is on the western coast of Sweden. It will be great if authors can provide detail of ever users as smokers or snus users in Halland. This can provide information about the preference of tobacco usage among adolescents of different social strata in western areas of Sweden.

3) The authors have adjusted the results for gender; however, it will be interesting to see the change in DMFS, stratified by gender. Authors themselves have acknowledged that tobacco usage is different between boys and girls.

Minor revisions:

1) Please check table 1 for consistency in total never users for base line (8609) and change in dmfs (8610) columns. Check numbers at page 5 (n = 8609) as well.
2) In the section of Statistical methods, line 4, and in the abstract, please make sure if the statement, “proportion with #DMFT >0” is correct or should it be #DMFT =0; because in table 1, % #0 indicates proportion with no new caries.
3) In Discussion section, line 3, check “us” which probably should be “use”.

Discretionary revision:
1) Use of the context in the title, for example, Swedish adolescents or study in Sweden.

**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.

**Declaration of competing interests:**

I declare that I have no competing interests