Reviewer's report

Title: Sports activity and combined use of snus and cigarette smoking among young males in Finland in 1999-2010

Version: 1 Date: 9 December 2011

Reviewer: Tord Finne F Vedoy

Reviewer's report:

Comments on “Sports activity and combined use of snus and cigarette smoking among young males in Finland in 1999-2010”

This repeated cross-sectional survey from Finland aims at describing the associations between tobacco use and sport activities among young Finnish males in the period 1999-2010. To examine this, the authors constructed three logistic regression models with snus use, cigarette smoking and dual as dependent variables (reference group in all three models were non-users of tobacco).

Results showed that the likelihood of using snus among young men involved in team sports and ice hockey was 1.5-1.6 times greater than among those that were not involved in such sports. In addition, the odds of snus use were higher for those who participated in regular training compared to those with no physical activity. Likewise, the odds of cigarette smoking were lower for those engaged in regular activity than those who were not.

The paper addresses a topic that is of growing importance, especially in the Nordic countries. If the authors address the comments below, this paper could be suitable for publication.

The manuscript may benefit from further English language revision.

DR=Discretionary Revisions
MER=Minor Essential Revisions
MCR=Major Compulsory Revisions

Title
1. MER Is the aim of the paper to discuss combined use only? Snus use and cigarette smoking should be included in the title.

Abstract
2. DR 3rd paragraph, 1st line: prevalence should be inserted after cigarette smoking.
3. MER When reporting ORs, always mention the reference group. Ex: 2nd sentence in 3rd paragraph and 2nd sentence in the conclusion.
Background/introduction

4. DR 1st paragraph, 2nd sentence: initiation or uptake should be inserted after against smoking.

5. DR 1st paragraph, 2nd sentence: smoke should be changed to smoked.

6. DR 2nd paragraph, 3rd sentence: missing comma between leisure time. and physical activity?

7. DR 5th paragraph 1st sentence: It seems as if the words “sport activities” are missing.

8. MER 5th paragraph 3rd sentence: Is this your hypothesis? Prefer snus to what?

9. MCR 6th paragraph: What you intend to do and why must be stated more clearly.

Subjects and methods

10. MER 1st paragraph, 1st sentence: the age group should be more precisely defined.

11. DR 1st paragraph, 3rd sentence: are->were.

Background variables

12. MER 1st paragraph, 1st sentence: Which is the fourth socioeconomic background variable?

13. MER 1st paragraph: Family composition and urbanization are best described as demographic variables, not socioeconomic.

14. DR 2nd paragraph, 1st sentence: the following->12 variables.

Statistical analysis

15. MER General: The models should be explicitly described. If understood right, the authors first run 3 sets of “bivariate” (with inclusion of age) logistic regression models for each independent variable with snus use, smoking and dual use as dependent variables. In all cases non-use of tobacco is reference category. Then they run 3 logistic regression models with snus use, smoking and dual use as dependent variables and with all independent variables included. What is the rationale behind this? To exclude variables? If this is important the difference between unadjusted and adjusted models should be discussed. An alternative approach in table 1 could be to show percentages+ 95% CI instead of ORs.

16. MCR Important: Some measure of model fit should be included (Hosmer-Lemeshow goodness-of-fit or (preferably) linktest).

17. DR 2nd paragraph: To model changes over time, survey year could be entered as dummy variables.

18. DR 3rd paragraph, 2nd sentence: explanatory->independent.
Results

19. MER General: When results are given as odds ratios, this should be reflected in the text. Results should not be described as prevalence (2nd paragraph, 3rd sentence), rate (3rd paragraph, 1st sentence) or risk (3rd paragraph, 3rd sentence). Also, the reference category should always be described (ex: 2nd paragraph, sentences 4 and 6).

20. MER 1st paragraph, 3rd sentence: Although significantly different, differences between 5% and 7% and between 12% and 13% are not substantially meaningful.

Discussion

21. MCR General: The authors should more thoroughly discuss the possible directions of the associations between sport activities and tobacco use. Also, the fact that snus is not sold in Finland must be discussed? Which groups have better access to snus? How does this affect your results?

22. MER 1st paragraph, 1st sentence: What does higher levels of sport activity mean? Higher intensity or higher frequency?

23. MER 3rd paragraph, 1st sentence: Se comment 2 under Results.

24. MER 4th paragraph, 2nd sentence: This statement needs a reference.

25. MER 5th paragraph: The authors should put more emphasis on the limitations of the study than the strengths. Selection due to not choosing military service and due to snus availability should be highlighted.

26. DR 5th paragraph, 2nd sentence: Delete exceptional. 10 years is a long, but not an exceptionally long period.

Figures and tables

27. DR Title of figure 1 and figure 1 should be on the same page. I suggest substituting Frequency with Prevalence.

28. MER Title of table 1 should be written more clearly and information about the reference groups should be included.

29. MER Table 2: Information about reference groups (non-users of tobacco) should be included.

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: No, the manuscript does not need to be seen by a statistician.
Declaration of competing interests:

I declare that I have no competing interests