Reviewer's report

Title: Key health promotion factors among male members of staff at a higher educational institution: a cross-sectional postal survey

Version: Date: 8 June 2007

Reviewer: Marieke W Verheijden

The manuscript reports on data collected through a worksite-based mailed questionnaire. The primary research goal (as defined in the last paragraph of the introduction) was to identify possible clustering of (un)healthy lifestyles in (subgroups of) men in a workplace sample.

Major Compulsory Revisions
1. Please make substantial changes to the introduction to give the text more focus. For example: If possible clustering of lifestyles is indeed the topic of interest; please explain why this is relevant and discuss the available evidence from the literature. Remove all introductory lines on topics that have no direct relation to this (such as the definitions of ‘health promotion’; this should be known to the readership of BMC Public Health and is of little relevance to the topic of the manuscript).
2. Please extend the materials and methods sections as the current manuscript provides insufficient information to replicate the work. The following examples may give you an idea about the changes that need to be made, but many more changes are necessary. Provide more information on the questionnaire. Readers need to be able to understand (in general terms) what you measured without having to contact you for the original questionnaire. At least mention all topics you collected data on. Please provide information on how the key outcomes (smoking, alcohol consumption and physical activity) were defined. The current lack of information leaves room for confusion. For example, table 1 suggests that smoking was defined in three categories, but if smoking was used as the dependent variable in logistic regression analyses (page 8) it must have been collapsed into two categories. Explain this in the methods section. Also explain how other variables (e.g. marital status and physical activity) were entered in the regression models. E.g. was physical activity entered as a continuous variable (range? etc) or as a categorical (which categories? What was the reference group? etc)?
3. I disagree with your decision to categorize alcohol intake as none/some. I am not familiar with any European guideline recommending complete abstinence for adults (by contrast, there is ample evidence that moderate alcohol consumption has beneficial health effects). Choosing the “none” group as the healthy reference therefore does no justice to what we know about alcohol, and (as an added disadvantage) leaves you with a small group (n=52) of men to conduct analyses on. I would suggest to distinguish men who meet current guidelines (mild to moderate drinking) from those who don’t (excessive drinking).
4. The results section contains many paragraphs with no relevance for the primary research question (does clustering of lifestyles occur?). Furthermore, large parts in the results section discuss data that are not shown in tables/figures. I would suggest to focus the results section on answering the primary research question. In my opinion this means that a paragraph on clustering of the lifestyles should be the main outcome. Descriptives on the individual lifestyles is a valuable and interesting addition to this, but one may wonder how relevant all subgroup analyses are.
5. Tables 1, 2, and 4 present data on subgroup analyses. Please be careful not to “test” the same subgroup twice (i.e. testing both the banded and the group variable for age is redundant. Please pick the most important one; I would suggest using the banded variable as this gives more information. I would like to stress that to prevent data-fishing, the decision on which variable to use should have been made BEFORE conducting the analyses) The same argument may hold up for using both education level and job title, as much research has shown that these are strongly related.
6. Some parts of the results section (e.g. third and fourth sentence page 9) should be in the materials section.
7. Figure 1: Do not connect the means from the different groups, as this does not do justice to the data. I would prefer bar charts.
8. Please contemplate on the necessity to adjust for multiple testing. It seems that many subgroup tests were conducted, which is fine (if there is an a-priori assumption on how and why the groups might differ). However, if one conducts many tests, a few will inevitably turn out to be significant. Please address this.
9. If possible, I would combine the discussion and conclusion sections (please follow the “standard” format for this final section, i.e., start with a summary of main findings, discuss these findings in view of the limitations of your own work and in relation to the available literature, conclude with what this adds and
where it leaves us). Please make the integrated section more concise.

Please note: I will not go into the discussion and conclusion in detail, because I feel that these sections will change considerably if the authors bring more focus in the article. I would be more than happy to comment on these sections after receiving a later draft. I wish the authors all the best revising the manuscript.

Minor Essential Revisions

1. Tables 1, 2, and 4:
   - remove the n from the subgroups in the table; the percentages are sufficient
   - make the text and the tables matching. The text often refers to groups in which the prevalence of (un)healthy behaviour is highest. To support the text, the tables would need to present percentages of (un)healthy behaviour within subgroups (e.g., the percentage of smokers, ex-smokers and never-smokers WITHIN the group of single/separated/divorced men and NOT the percentages of single/separated/divorced versus married/living with partner WITHIN the group of smokers). In short: row-percentages better match the text than the column-percentages that are currently provided.
   - make sure percentages within subgroups add up to 100% (check rounding)

2. I am not sure what table 3 (detailed information on alcohol intake) adds. Most of the text refers to subgroup analyses, yet these are not presented. I am also unsure why the authors chose to provide additional information on alcohol (Figure 1 and Table 3) but not on smoking and physical activity.

Discretionary Revisions

I would propose to the authors to focus on the main concerns of the editors and reviewers before addressing discretionary revisions. Again, I feel that some major changes need to be made to the manuscript and I have focused on those major changes instead of the possible smaller ones.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of limited interest

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.