Author's response to reviews


Authors:

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Author's response to reviews: see over
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BMC Women’s Health

Dear Editors,

We appreciate the comments and suggestions from the editor and the opportunity to resubmit a revision. This revised version reflects the many changes as suggested by the reviewers and detailed below. We appreciate the generally positive appraisal of Reviewer #1 and the thoughtful questions and suggestions from both reviewers. All changes are highlighted in the text. Although we added additional references which required new numbering, we did not highlight these.

<table>
<thead>
<tr>
<th>Reviewer 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title</strong></td>
<td>We have changed the title to read “Are quit attempts among U.S. female nurses who smoke different from female smokers in the general population?”</td>
</tr>
<tr>
<td>I think the first part of the title should be modified; for example as follows: Are quit attempts among U.S. female smoking nurses different from female smokers in the general population?</td>
<td></td>
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<tr>
<td><strong>Abstract</strong></td>
<td>We have changed this text so that it now reads: The purpose of this study was to examine how smoking and quitting characteristics (i.e., ever and recent quit attempts) among females in the occupation of nursing are similar or different to those of women in the general population.</td>
</tr>
<tr>
<td><strong>Background:</strong> The text is not clear; i.e. Was the purpose to describe a) how a special occupation is related to quit behaviour among women or b) so called ‘female typical quit behavior’ as hinted in the 2nd sentence? As far as I understand, however, with this design one could describe the occupation specific characteristics, i.e. option a) seems to be more relevant. This part of abstract needs clarification.</td>
<td></td>
</tr>
<tr>
<td>Methods: Mentioning only one smoking characteristic seems odd in the abstract text.</td>
<td>We have amplified this description. This now reads: Smoking characteristics included years of smoking, number of cigarettes, and time to first cigarette with smoking within the first 30 minutes as an indicator of nicotine dependence.</td>
</tr>
<tr>
<td>Results: Smoking rates seem to be misplaced; should be nurses (12.1%) and others (16.6%). Also, a p-value for the test of significance should be given.</td>
<td>Thank you, we have corrected this.</td>
</tr>
<tr>
<td>5th line: I recommend that word ‘however’ is removed because both results are in line with each other: i.e. more dependent – more likely</td>
<td>We have added the p-value.</td>
</tr>
<tr>
<td></td>
<td>We agree and this word has been deleted.</td>
</tr>
</tbody>
</table>
to quit; less dependent less likely to quit during
the last 12 months.

**Conclusions:** This part should include only those conclusions which can be directly derived from the results. Now, this is too long, including too many issues which are actually not supported directly by the data of this study. We have edited this section so that it is on point to the findings of the study and much shorter. Please see highlighted text.

**Background**
In general, the reasoning for this study is satisfactory. However, at the end of this section, there should be a clear and well defined statement of the research question(s) or research objective(s) of this study. We have added a paragraph at the end of this section that describes research questions.

**Methods**

**Sample**
I see that occasional smokers and daily smokers have been pooled together in this study. This decision may be wrong. Occasional and daily smokers are different in many characteristics (Korhonen et al. Nicotine & Tobacco Research. 2009, 11 (2): 148-155). Thus, I think also in this study, daily smokers and occasional smokers should be considered as separate categories. This is an interesting comment. The term infrequent user is used in the TUS-CPS to indicate those who smoke less than 12 days per month. We examined the proportion of frequent/infrequent users in the two groups (see below). We included frequency of use (i.e., smoking 12 or more days a month) as a controlling variable in the final regression model, but the interaction was not significant. We have corrected the text and table footnotes to reflect this.

<table>
<thead>
<tr>
<th></th>
<th>Female Nurses who smoke</th>
<th>Female smokers not in health care occupations</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequent user</td>
<td>313</td>
<td>15372</td>
<td>15685</td>
</tr>
<tr>
<td>Infrequent user</td>
<td>93</td>
<td>3457</td>
<td>3550</td>
</tr>
<tr>
<td>total</td>
<td>406</td>
<td>18829</td>
<td>19235</td>
</tr>
</tbody>
</table>

Smoking characteristics and level of addiction
Replace ‘level of addiction’ by ‘level of nicotine dependence’ anywhere where the term is used.

Thank you, we have made this change.
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why was age 15 used as cut-off for age of initiation? There should be reasoning for this.</td>
<td>The initial variable was continuous, but we decided to categorize it to match the way this variable has been measured by others using the same data in the literature (ref: Smoking Cessation Rates in the United States: A Comparison of Young Adult and Older Smokers).</td>
</tr>
<tr>
<td>Also, was this considered as age of first cigarette or of regular smoking?</td>
<td>This is the age of regular smoking. We have corrected this in the manuscript.</td>
</tr>
<tr>
<td>The authors used TTF as measure of nicotine dependence. I am surprised why they did not create the HSI (Heaviness of Smoking Index) because they had number of cigarettes smoked per day?</td>
<td>Yes, we do have information about number of cigarettes smoked per day. We chose “time to the first cigarette” as a way to measure nicotine dependence in concurrence with others in the literature. This allowed us to compare findings to other studies on quitting using Tobacco Use Supplement of the CPS data such as the article by Fagan et al., (Quit Attempts and Intention to Quit Cigarette Smoking Among Young Adults in the United States, 2007, American Journal of Public Health). We clarified the rationale for our decision in the methods section. This approach also minimized a sample reduction due to missing data. The question for “the number of minutes/hours to first cigarette” has more missing value than the question for “if smokes within 30 mins after wakes up” As Borland et al. (Nicotine &amp; Tobacco Research, 2010) revealed in their analysis of the reliability and predictive validity of the Heaviness of Smoking Index, TTFC was reliable over time and an important independent predictor of quitting. Their analyses also supported the use of categorical scoring rather than use of continuous variables for the HIS, CPD or TTF. In our study we do not have longitudinal data so are not able to determine the predictive validity of the TTFC over time.</td>
</tr>
</tbody>
</table>
Those 2 paragraphs after the paragraph above, should have a subtitle, such as ‘Other characteristics’ or similar.

We added the subtitle “Demographic characteristics”

| **Statistical analyses**  
For continuous variables, such as age, age of smoking onset, years of smoking and number of cigarettes per day, why did the authors not use T-test because there are two groups to be compared? | We appreciate this comment as we realize that we neglected to provide a comprehensive rationale for our decision about the data management. Our use of categorical variables allowed us to compare our findings to other research in the field using this data set. We have now added this information to our manuscript.  
For age of onset, we used the same cut-point as in the paper by Messer et al., that used the 2003 TUS-CPS data set (Smoking Cessation Rates in the United States: A Comparison of Young Adult and Older Smokers, 2008, American Journal of Public Health).  
We used similar categories for years of smoking and number of cigarettes per day as in a study using the 2003 TUS-CPS data set (Use of Smoking-Cessation Treatments in the United States, Saul Shiffman 2008). Although there were more categories in this paper for both variables, we collapsed some of them to make the categories more relevant in the context of our population. |

| **Conclusions**  
As conclusions this paragraph is relatively long. Part of this could be included in discussion and only those conclusions directly derived from the results should be included as conclusions. | Thank you. We have removed the extraneous information to the discussion section so that the conclusion is focused on the results. |

| **Minor Essential Revisions:** | |

| **Sample**  
Lines 6-7: here must be an error, because how can one response ‘yes’ to a question with the options: ..every day; some days; not at all!  
Same problem with the next sentence as well. | Thank you. This was corrected in the text |
### Results

3rd paragraph: Did you have data on use of nicotine replacement therapy? This would be relevant as you report level of nicotine dependence, so, about half of the smokers seem to be dependent.

Unfortunately, this variable was not available in this version of the TUS-CPS. We note this in the limitations section.

5th paragraph: The test for significance and p-value for the group x TTFC –interaction should be given.

Thank you. We added the interaction term.

### Discussion

1st paragraph: expression that female nurses who smoke may not have an easier time quitting, is not the correct way of describing the finding that female nurse smokers were not significantly more active in making recent quit attempts. Maybe it could rather be expressed as ‘motivation to quit’.

We considered this suggestion. However, we do not have any information about motivation to quit and cannot speculate on motivation to quit. We used the term “may” not have an easier time quitting to suggest that this is also speculative.

Are the data sound?

I am afraid that the data available in this data set is not very relevant for comparing nurse smokers to other female smokers. For example, I would be interested in such issues, if nurse smokers differ from others in terms of reasons for smoking, and also when they try to quit if the reasons why they quit are different than in other women who try quitting. I guess such data are not available in this survey.

This large national data set has been used to compare smoking and quitting across occupations, but not to compare differences in occupational smoking among women. Other studies, including our own have described the characteristics associated with nurse’s reasons for smoking and reasons for quitting. However, this is beyond the scope of this article this using data set. We do not know of any study which has compared quit attempts among nurses who smoke as compared to the general population of female smokers which was our rationale for pursuing this study.

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Does the manuscript adhere to the relevant standards for reporting and data deposition?

I would rather suggest that the percentages should be given with one decimal only (if not against the guidelines of BMC). Thus, instead of 10.73 # 10.7 %, etc.

We did not see any special requirements from BMC about this. We have changed all of the percentages to one decimal place.

### Minor issues - not for publication

Background: 5th paragraph:
line 7: replace ‘provide’ by ‘provides’;
line 10: replace ‘An analysis smoking among of healthcare…’ by ‘An analysis of smoking among healthcare…’;
lines 12-13: replace ‘...with physicians and

Thank you. We have made these changes and they are highlighted in the text.
dentists having the lowest smoking prevalence.’ by ‘...with physicians and dentists having clearly lower smoking prevalence.’

Sample: 2nd paragraph:
line 6: add ‘other’ between ‘or’ and ‘healthcare’

Smoking characteristics and level of addiction:
1st paragraph:
Line 5: ‘(20 cigarettes per pack)’ is not necessary

Results:
1st paragraph: last line: replace ‘..but neither of these differences were not statistically significant’ by ‘..but neither of these differences was statistically significant’

4th paragraph: replace ‘..controlling for statistically significant demographic variables and smoking characteristics, as observed in Tables 1 and 2.’ By ‘..controlling for statistically significant group differences in demographic variables and smoking characteristics, as observed in Table 2.’

**Reviewer 2**

**Minor issues**

In the Abstract, in the first sentence referring to results, the assumption that “Nurses (16.63%) had a lower smoking prevalence than other women (12.09%)” is false. The rate 16.63% is not lower than the rate 12.09%. I suppose it is an editing error.

We apologize for this oversight and have made the changes in the abstract.

Thank you. We used the same regions used in a prior study of the TUS-CPS (Fagan et al., 2007. Quit Attempts and Intention to Quit Cigarette Smoking Among Young Adults in the United States, American Journal of Public Health). As described previously, we have added this rationale to the methods.

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I propose revising the **Conclusions section**. In my opinion, conclusions should only recapitulate the main findings of the study rather than comment on them, which is, in turn, preferable in the Discussion. For instance, the sentence: “Although the relatively low prevalence of smoking among nurses is encouraging, it remains much higher than the estimated 2% of physician smokers [25]” is better suited to the Discussion. As a conclusion it is enough to state that: “The prevalence of smoking nurses is relatively low in comparison to the general population of women”.

We agree and have revised the conclusions section based on these recommendations. We have moved some of this content to the discussion section as highlighted in the manuscript.

Similarly, the sentences: “Unlike other female professions, the negative impact of smoking on the health of nurses has been well established[8]”, “Evidence suggests that worksite smoking bans may encourage further quit attempts [36]”, and “As more and more medical campuses become smoke free, this may accelerate quit efforts of all healthcare professionals [37, 38]” should be placed in the Discussion section. These sentences describe findings of other studies rather than reflect conclusions resulting from the presented study.

We agree and have moved this content to the discussion section.

**Discretionary concerns**

In **Table 1** there is a typing error: the rate of female nurses who ever made a quit attempt should be 43.18% not 43.185. Although, on the other hand, any “%” sign should be placed in this Table as has been done in Table 2. Column labels specify percentages as units of the values showed in the tables, and there is no need to repeat them inside the columns.

Thank you. We made this correction and deleted the % sign in Table 1.

The abbreviation SE used in tables should be explained in the footnote of the tables.

We have added this explanation to the footnotes.

The second sentence before the **Conclusion** section “Additionally, we do not have information body weight” should be revised (“on” or “about” should be added before “body weight”)

We have edited this sentence.