Reviewer’s report

Title: Sleep quality in cigarette smokers and nonsmokers: findings from the general population in central China

Version: 1 Date: 26 Dec 2018

Reviewer: Fengsu Hou

Reviewer's report:

This is a large scale cross-sectional study in central China, which focuses on the association between smoking or cigarettes smoking and sleep quality. The study reports smokers had poorer sleeping quality, and found, among smokers, several factors associated with sleep disturbances positively or negatively.

I have several comments for the manuscript and I am very looking forward to having responses from the authors.

1. The introduction presented cigarette consumption in China, its adverse health outcome, nicotine and related health issues, the associations between smoking and sleep quality, etc. However, it missed presenting the prevalence of poor sleep quality among smokers in China (laking, yes, but it does not mean none).

2. Page 6 line 50 to page 7 line 28: In this section, the authors described the sampling and participants.

1) However, if this study was not a part of larger study, then how did the sample size be determined? Further, during the sample size calculation, as a cross-sectional study, did the author use the prevalence of sleep disturbance among the general population or the prevalence among smokers?

2) What was the inclusion or exclusion criteria? Was the survey only focused on local residents based on the "Hukou" system? Would immigrant workers be included?

3) The sample size was 27,300, and 26,851 participants completed the survey, and 26,282 records were applied in analysis. But in results, the authors mentioned "a total of 26,851 subjects were sampled from the general population and 26,282 (97.9% response rate) completed the self-report ....". Being sampled does not mean completing the survey. And response rate should be calculated by how many participants you have reached out to and the sample size. The number 97.7% only means the percentage of data can be used for analysis after data clean. And if
completing self-report cigarette smoking characteristics was one of the inclusion criteria, then should state.

4) The age range should be in results.

3. Page 8 line 1: The definition of illiterature is not practical in real survey. Will interviewer count how many words any participant can read?

4. Page 8 line 23 to line 31: Has the Visual Analogue Scale for Craving been validated in China before? Does it have a Chinese version? If not, who did the translation. The author should state the cronbach alphas for VASc and PSQI.

5. Page 9 line 1 to line 6: The authors should list the statistic significant level here, p value.

6. Page 9 line 56: Table 1 first appeared here.

1) The p values in Table 1 is confusing. For example, in the age section, the p value was under 0.001, did the value indicate the differences in mean between smokers and nonsmokers or the differences of the distribution of participants in each age group between smokers and nonsmokers? Under the table, the authors mentioned "%" presented for the percentage of subjects, if the distribution of participants in each age group and any other subgroup was not the main topic, I suggest to list the prevalence of sleep disturbance for each subgroup here.

2) The definition of cigarette smoker, alcohol drinking, BMI, analysis methods, the calculation of VASc score should all be listed in methods not under table 1.

7. Page 10 line 3 to line 23: Table 2 and table 3 has the same problems as table 1.

8. Page 10 line 28 to line 48: In the regression analysis, how did author treat factors age, gender, employment, marriage and residence, as continuous or categorical factors?

9. Page 13 line 9: Why the low rate of female smokers was one of the limitation?

10. The authors should state about what future studies should do based on current findings.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes
Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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