Reviewer's report

Title: Difference of the associations between self-rated health and demographic characteristics, lifestyle, and psychosocial work environment between two representative types of Chinese worksite

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Reviewer: Sérgio Oliveira

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REVIEW

MS ID: 2397513581230721
Title: Difference of the associations between self-rated health and demographic characteristics, lifestyle, and psychosocial work environment between two representative types of Chinese worksite
Authors: Yingnan Jia, Junling Gao, Junming Dai, Pinpin Zheng, Xiaoyu Wu, Guangyao Li and Hua Fu

First of all, I am glad in offering some contributions to this paper. I hope that my comments will improve the quality of this paper.

The paper is well written and it contributes with the knowledge about the determinants of the subjective health felt by people in different work contexts. This understanding can help in the formulation of efficient interventions promoting the quality of life into workplace and life generally.

I give below my general comments. My suggestions are considered as "Minor Essential Revisions" according to BMC Public Health's editorial policy.

1) Abstract
The abstract is well written. I only suggest turning it a bit shorter. The authors can use the acronym SRH.

2) Keywords
The keywords are okay.

3) Introduction
The introduction is well written. The references are modern and appropriated to the text content. The authors present the framework of the self-rated health (SRH) in the work context. They present the demographic, lifestyle, and psychosocial work environment variables associated with the SRH and some results found until the moment. They finish showing the justification and objective of the paper.

My contributions to the Introduction section: The authors could present the operational definition of the main variables studied ("Social Capital", "Job
Demand”, “Job Control”, and “Support at Work”). They also could show the importance of these variables on the SRH.

4) Method
The study was performed with a large sample. This is one of the good points of the paper. The authors reported the ethical cares taken on the study and the procedures of data collection.

My contributions to the Method section: It is important to justify or describe the worksites selected. Why was chosen 10 governmental department and just 2 high-tech enterprises? Is the variability among the 10 government worksite similar to the 2 high-tech enterprises? Is there any bias in this distribution? If yes, it should appear in the limitations of the study.

About the marital status variable: I would like to do a reflection (just that). I do not understand why it is important to the model, because, rather than be married or divorced, the importance to SRH seems be on the relationship status. A divorced person not necessarily is alone.

About the measurements: The authors should justify the reason to dichotomize the SRH measurement. The middle point of the scale is normally used by people who evaluated their health neither good nor bad (even having the name “good”). I got curious about the distribution of the people frequency in each scale point. The groups could be formed by statistical procedures like cluster analysis. It could improve the scientific quality of the paper.

It was not clear to me understanding what it was considered as being the moderate-intensity activities, and vigorous-intensity activities. Could the author give us some (short) examples?

About the data analyses: The authors have chosen for an appropriate analysis to investigate the objective proposed. However, they have participants enough to investigate the model with more sophisticated analysis techniques. They analyze the differences testing several models. They could build a model using the worksite as a moderator or mediator variable. The Structured Equation Modeling (SEM) could help him to find more substantial results. But it is just an opinion and suggestion. For this paper the authors do not need to do this.

Others specific things, but not less important, are presented in the paper [highlighted with yellow and with a comment].

5) Results
The results are presented in three subsections. First of them is about the sample characteristics. The second one is about the difference of potential health influencing factors of participants from different type of worksite. Lastly they present the results of logistic regressions.

My contributions to the Results section: In the Results section I noted that the authors work with two big axes. One of them is about the SRH dividing the group of participants between lower and higher SRH. Other is about the worksite dividing the group of participants between civil servants and high-tech enterprise employees. For this reason, I suggest adding in the Table 2 and 3 of more three
columns presenting the descriptive [n (%)] and inferential statistics [F(p)/x²(p)] for the groups of lower and higher SRH. Thereby, the readers can identify how the variables are behaving in each group (High-tech enterprise vs. Government department - Lower vs. Higher SRH). It would be great if the authors introduce the results of the x² test in Table 2. For the variables with more than two options (e.g. Age, years; Length of service; etc.) it is important to indicate which of them are different between the groups.

Others specific things, but not less important, are presented in the paper [highlighted with yellow and with a comment].

6) Discussion
The authors did their discussion according to the steps presented in results section. They started the discussion speaking about the percentage of people who say have good SRH. After that, they discussed about the differences among lifestyle of civil servants and high-tech enterprise employees. Then, they spoke about the differences between the psychosocial work environments. Lastly, they discussed about the regressions results found in their research.

My contributions to the Discussion section: I think that this part of the paper was the most fragile. The first reason for this comment is although the authors have presented other studies to confirm or compare their results; they did not the integration of the information nor did any discussion about the found differences.

Other thing is about one important result found in this research which was not discussed for the authors. They found that civil servants have better SRH than high-tech enterprise employees. However, the civil servants have worse lifestyle than other group of participants. In other hand, the civil servants said have better psychosocial worksite environment. So, what are the authors’ thoughts about that? Is the psychosocial worksite environment most important to determine higher SRH?

Others specific things, but not less important, are presented in the paper [highlighted with yellow and with a comment].

7) Conclusions
The authors repeated the main results of the research and suggested the development of interventions to improve the health of employees according to their worksite.

My contributions to the Conclusion section: I think it would be more useful if the authors had presented the actual conclusions about the study (not just repeat the main results). What are the determinants of SHR in different worksites? What could explain the differences?