Author's response to reviews

Title: Relationship between actual and desired workplace characteristics and job satisfaction for community health workers in China: A cross-sectional study

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Author's response to reviews: see over
Dear Editor

Thank you for your letter and for the reviewers’ comments concerning our manuscript ID 1994148847130922 entitled “Relationships between actual and desired workplace characteristics and job satisfaction in community health workers in China: A cross-sectional study”.

The reviewer’s comments are very valuable and helpful for us to improve our paper. We have studied comments and suggestions carefully and have made relative correction in line with it, we hope those revisions will meet with your approval. The revised parts are marked in red in our paper. The following is a point-to-point response to the two reviewers’ comments.

Reviewer's report

Reviewer: David Hanley

1、In the Methods you identify the number of people who took part: you may want to indicate what proportion overall of people participated out of the whole available staff group.

Answer: Thank you for your nice advice. In line with advice of you, we have provided more detailed information on the sample in the revised manuscript. Please refer to Line 131-138, Sample Section.

In this study, three cities (Harbin, Suihua, and Qitaihe) were selected in order to account for the variability in regional per capita gross domestic product and healthcare development levels. Ten CHCs were randomly selected from each city. On average, 24 personnel, including administrative staff, general practitioners, public health physicians, nurses, rehabilitation doctors, dentists, and technicians worked in each of the selected CHCs. Seventy percent of employees were chosen randomly, excluding those who were absent. The research team visited each of the selected CHCs and invited all selected staff members to participate in the study.
2、At times your written English is a little stilted: you may want to review the flow of your writing.

Answer: Sorry for not having any professional proof-reading before the last submission. The revised manuscript has been edited and proofread by an editing company. I hope it will be helpful.

3、Lines 69 – 72: you talk about practitioners, assistant practitioners, and then general practitioners. You need to be consistent in your terminology. You could also consider giving a more rounded picture of the workforce composition, given that there are other staff groups identified in the demographic information

Answer: Thank you for your valuable advice and your question; we have added some information on the background section and sample section. Please refer to Line 80-83, Background Section and Line 134-136, Sample Section.

There are 5,416 general practitioners working in community health institutions in the province. When this number is compared to the reference population, based on human resource planning ratios, there is a shortfall of approximately 30% in the number of general practitioners (5,416 vs. 7,620).

On average, 24 personnel, including administrative staff, general practitioners, public health physicians, nurses, rehabilitation doctors, dentists, and technicians worked in each of the selected CHCs.

4、There are a number of typographical errors: on a number of occasions you run numbers and words together (eg lines 62, 117 etc).

Answer: Thank you. We have revised these typographical errors.

5、Line 67 ‘physician’, needs to be plural.

Answer: Thanks. We have revised it.
Since the introduction of CHCs, these institutions have encountered difficulties due to limited resources, an insufficiency of staff members, and inadequate staff training.

In your section on Measures you refer to workplace incentive items, but then mention remuneration which is a subscale. You need to go through and ensure there is consistency when referring to items and subscales.

The second was used to assess the value of actual and desired workplace characteristics using 44 potential workplace incentive items, such as opportunities to participate in decision making.

This needs to be rephrased, in that you use the phrase ‘workers desirability’, which is not the correct way to refer to the desires of workers around their workplace.

Thank you for your question. We have revised it to “workers desires”. Please see Line 287.

Thank you. Yes, we mean previous.

Line 280 “desired” mean “desired remuneration”. Please see Line 347.

In the Abstract you identify that the main determinants of job satisfaction include occupation and age. However, within your results, discussion and conclusions you make very little reference to the impact of occupation and age:
you should give more consideration to this issue, and in particular consider the significance of occupation and age on your findings.

Answer: Thanks for your valuable advice; it will make my paper more logical. In line with your suggestion, we have provided information on the significance of occupation and age on our findings. Please refer to Line 362-371, Discussion Section.

In this study, we found that general practitioners and public health physicians reported higher job satisfaction compared with administrative staff. In community health institutions, general practitioners and public health physicians were the main providers of basic public health and medical services. They earn higher salaries and would be afforded more opportunities to join conferences and receive in-job training. The results also indicated that health workers who had worked in the position for 11–15 years displayed lower levels of job satisfaction. Most of these workers faced difficulties with respect to promotion, because it was difficult for community health workers to achieve promotion, as there were limited annual promotion quotas in CHCs in Heilongjiang Province. This would exert a negative influence on job satisfaction.

12. In your Measures section you identify that you use a 44 item list: you correctly identify within the Limitations that this list still requires comprehensive assessment for validation and reliability. It is not clear if the original item list was altered via the panel review system you employed. The process you employed seems appropriate in the circumstances, but it seems to me that an area for further work should be establishing a context specific instrument that could be used for further studies, unless you are identifying that the work on instrument through the panel system has achieved this.

Answer: Thanks for your enlightening points. According to your suggestion, we have provided more detailed information on the reliability and validation. Please refer to Line 377-386.

As previous studies, the original item list was altered via literature reviews first. And then several panel reviews were employed. These panel reviews involved
researchers, health care managers and community health workers, who were different stakeholders.

In addition, factor analysis and principal component analysis were used to develop an internally consistent scale and reduce items. Factor analysis is a good method to assess the validity of the questionnaires.

Based on these methods, the study achieved good reliability (Cronbach’s $\alpha = 0.87$). Moreover, the eight-subscale solution accounted for 68.49% of the overall variance, which indicated that the measurement instrument displayed reasonable validity.

13. you mention ERG and ‘Crowding out effect’ (line 205) you should explain this more fully.

Answer: Thanks for your valuable advice; it will make my paper more logical. In line with your suggestion, we have fully explained ERG and ‘Crowding out effect’. Please refer to Line 107-117.

Existence, relatedness, growth (ERG) theory, which reduced Maslow's five levels of need to three categories (Existence, Relatedness, and Growth), was proposed by Clayton P. Alderfer [47]. Alderfer maintained that the three ERG areas are not hierarchical levels, and an employee’s behavior is motivated by more than one need level operating simultaneously. This theory included a frustration-regression process, in which inability to satisfy a higher need causes frustration and a regression to the level of need that is one step lower in a hierarchy of needs. ERG theory also suggested that the fulfillment of one need would enhance one’s desire. Process theories focused on the influence of subjective expectation, or the value that is placed on staff, on employees’ work efforts [31]. The crowding-out effect proposes that extrinsic rewards have a negative impact on intrinsic motivation [47].

14. You discuss the relationship between fringe benefits and remuneration: you should at least consider if the development of two distinct subscales is artificial, and that overall the set of items could be considered as one subscale...
Answer: Thanks for your valuable advice. According to your suggestion, we have rewritten the discussion section and explained why remuneration ranked highest for DWC and GWC. Please refer to Line 325-333.

In the present study, remuneration (stable income, pay equity, and performance bonus) ranked highest for DWC and GWC [18]. According to Herzberg's motivation-hygiene theory, remuneration is a hygiene factor that is required to ensure that an employee is satisfied. Previous studies have revealed that adequacy of pay and perceived equity via others influenced job satisfaction and behavior [50]. Studies in most developing countries have shown that job dissatisfaction in health workers is primarily accounted for by low salaries [16, 51]. Therefore, managers should provide fair pay to reduce the gap between desired and actual remuneration to improve job satisfaction [36, 37].

The fringe benefits and remuneration are two distinct subscales. Their relationship were discussed on Line 342-350.

Third, managers and policymakers should consider DWC and AWC comprehensively, as subscales of AWC can influence subscales of DWC positively or negatively. In our study, we found that actual remuneration was a positive predictor of desired fringe benefits, and actual fringe benefits were a positive predictor of desired remuneration. Consequently, an increase in actual fringe benefits would increase the gap between desired remuneration and actual remuneration. Similarly, an increase in actual remuneration would enlarge the gap between desired and actual fringe benefits. Therefore, to improve job satisfaction, care should be taken to balance the relationship between remuneration and fringe benefits.

15. You discuss working relationships and draw conclusions around what the results indicate (lines 288 – 292) It seems an over simplistic conclusion. Your reference is from a North Vietnamese study: how valid is it to use this study to support a conclusion around the context you are looking at? The result is a significant one, but you need to review what you draw from it.
Answer: Thank you for your advice, which is valuable in improving the quality of our manuscript. In line with your advice, we have provided more information on the discussion of working relationships. Please refer to Line 351-361.

Results also revealed that the working relationship subscale received the lowest ranking in GWC and the highest ranking in AWC. Three reasons accounted for this result. First, CHC is a simply structured organization employing fewer workers relative to general hospitals; therefore, managers enjoy greater opportunity to tailor incentives to individual staff members and provide employees with timely guidance if required. Second, it was easier for employees to communicate and form positive relationships in CHCs. Third, as ERG theory indicates, if a higher-level need appears too difficult to fulfill, the person may regress to lower-level needs. In our study, actual remuneration and fringe benefits were both low-level needs; therefore, financial needs increased, and desire for working relationships decreased. Therefore, working relationships were ranked in the lowest position in GWC.

16. You identify there is considerable room for improvement in narrowing the gap (lines 293 - 295) This is a very fair and significant point, but it seems wrongly placed. The fact that there is such a gap should be placed earlier in the section, as it indicates the overall position, and gives weight to the proposition that the specific issues that you then consider form your results should be addressed.

Answer: Thanks. What you suggested sounds great, which will make our paper look more structured and logical. So in line with your suggestion, we have reorganized the discussion section. Please refer to Line 315-324.

First, they should pay more attention to narrowing the gaps between the AWC and DWC, as five subscales of the GWC were negative predictors of job satisfaction. These findings were consistent with Locke’s study, which linked job satisfaction with discrepancy between actual and expected rewards and facets of the job [49]. The results also indicated that there was considerable room for improvement in narrowing
these gaps in order to improve job satisfaction, as the mean scores for each subscale of the AWC were significantly lower than those of the associated DWC subscale. Longest’s study proposed that individuals are beings of desire, whose needs depend on what they already have. ERG theory suggested that the fulfillment of one need would enhance one’s desire for a higher-level need.

Reviewer's report
Reviewer: Chengchao Zhou

Please polish English writing through the whole article.

Answer: The revised manuscript has been edited and proofread by an editing company. I hope it will be helpful.

Major concern:
1. There are two levels of institutions of community health service system in China, one is community health center (CHCs), and the other is community health service station (sub-center). From the method part, we can see that the authors only select CHCs as the sampling institutions. A question is the representativeness of the sampling health workers only from the CHCs for the community health workers. Please clarify.

Answer: Thank you for your question. According to your advice, we have provided more detailed information about community health service system in Heilongjiang Province. Please refer to Line 74-79, Background Section.

Heilongjiang Province is located in Northeast China and has a population of approximately 38.1 million. There were 410 urban CHCs and 366 community health stations as of December 31, 2012. The integrated management of CHCs and their affiliated community health stations was adopted by the Heilongjiang Provincial
Health Bureau, providing unified management to CHC and community health station employees.

Minor issues:
Abstracts: 1. In conclusion part, I think “reduce gap” is more appropriate than “close gap”.
Answer: Thanks. I have revised it.

Introduction: 2. In line 62, please add a blank between “1980sand”.
Answer: Thanks. I have added a blank between “1980sand”.

3. In line 66, replace the “to” with “with”.
Answer: Thanks. I have replaced the “to” with “for”, because urban and rural residents were the person who accepted the services. Please refer to Line 70.

4. In line 67, please use the plural form of “physician”.
Answer: Thank you. I have used the plural form of physician. Please see Line 72.

5. Please just use the abbreviation of CHCs in line 72.
Answer: Thank you. I have revised it according to your advice.

6. In line 92, please use plural form of the “research”
Answer: Thanks. I have used the plural form of the “research”. Please see Line 117.

7. In line 95, please use lower case form of the first letter of the word “community”.
Answer: Thanks. I have used lower case form of the first letter of the word “community”. Please see Line 122.

8. In line 99, please replace “was” with “were”.
Answer: Thank you. I have replaced “was” with “were”. Please see Line 125.

Methods:

9. In line 117, please add a blank between 3 and sections.
Answer: Thanks. I have revised this sentence to “The third section of the questionnaire”. Please see Line 163.

10. In line 143, please add a blank between 44 and workplace.
Answer: Thanks. I have added a blank between 44 and workplace. Please see Line 175.

11. In line 153, delete the word “including”.
Answer: Thank you. I have deleted the word “including”. Please see Line 186-187.

Results:

12. In line 169, please use lower case form of the first letter of the word “college”.
Answer: Thank you. I have used lower case form of the first letter of the word “college”. Please see Line 204.

13. In line 176, please add a blank between 35 and items.
Answer: Thank you. I have added a blank between 35 and items.

Discussion:

14. The results showed that there was a gap between desired and actual workplace characteristics, what cause it? Please give reasonable explanations.
Answer: Thanks for your valuable advice; it will make my paper more logical. In line with your suggestion, we have given the explanations. Please refer to Line 322-324. Longest’s study proposed that individuals are beings of desire, whose needs depend on what they already have. ERG theory suggested that the fulfillment of one need would enhance one’s desire for a higher-level need. So there was a gap between desired and actual workplace characteristics.
Conclusion: 15. In line 325, please delete the word “reported”.
Answer: Thanks. I have deleted the word “reported”. Please refer to Line 408.

References: 15. Please format references based on guide to authors.
Answer: Thank you. I have formatted the references.

Tables: 16. Presenting the Table 1 as an appendix is more appropriate.
Answer: Thank you for your nice advice. I have presented the Table 1 as an appendix.

17. In table 2, “years worked” means “working in the CHC” or working in any kind of health institutions? Please clarify.
Answer: In our study, “years worked” means “working in any kind of health institutions”.

18. Please format the table 3, table 5 and table 6 when they are presented in two pages.
Answer: Thank you for your suggestion. I have formatted these tables.