Author’s response to reviews

Title: Application of latent class analysis in assessing the competency of physicians in China.

Authors:
Yuhong Zhao (yuhongzhaocmu@126.com)
Zhuang Liu (47479180@qq.com)
Lei Tian (2426860636@qq.com)
Baozhi Sun (humour_515@hotmail.com)
Qing Chang (18900911868@163.com)
Yue Zhang (zhangyue@cmu.edu.cn)

Version: 1 Date: 13 Jun 2017

Author’s response to reviews:

Dear Editors and Reviewers:

Thank you for your letter and the comments concerning our manuscript entitled “Application of latent class analysis in assessing the competency of physicians in China”. Those comments are valuable and helpful for revising and improving our paper. We have studied comments carefully and have made corrections in the places marked in red in the paper. I have separated my responses to the reviewers’ comments according to several categories in order to achieve an integrated approach in my responses. The main corrections in the paper and the responds to the editor’s and reviewer’s comments are as following:

Response to reviewer #1 comments:

1. The introduction does not lead towards the aim of the study. The study lacks research question and hypotheses. The LCA should only be described in the Methods section, specifically in the Data analysis.

Response: We have made correction according to the reviewer’s comment. We added research question and hypotheses in the Introduction section. The description part of LCA had been moved to the Methods section.

2. The authors should add subheadings to better structure the Methods section. It is not clear what the subheading Study subjects and methods means.
Response: Considering the reviewer’s suggestion, we have added subheadings and re-written the Methods section.

I’m not sure how trustworthy the answers of a self-assessment questionnaire can be. It should at least be a limitation.

Response: The questionnaire in our research consisted of two parts, the first part was the self-assessment of physicians’ competency, and the second part was the importance evaluation of physicians’ competency. As reviewer suggested we used the importance evaluation instead of self-assessment to avoid subjectivity.

3. It is not clear the reason the authors decided to select only 15 items as well what is rationally behind being the most important items.

Response: There were a total of 103 items, due to the large number of questionnaire items, based on the importance results of physicians’ competency, the current study selected the means of each dimension of the questionnaire, and then performed latent class analysis on these 8 competency dimensions.

4. The subheading Quality control does not reflect any control. The authors are only describing the Procedure. I would like to suggest the authors summarize this part. The authors may only refer to an overarching paper.

Response: Considering the reviewer’s suggestion, we have re-written this part in the method section.

5. The results section is too extensive based on their findings. The tables are very difficult to read and understand. For example, in Table 2, how is possible a p-value be equal to 1.00. The authors should revise the results section.

Response: As reviewer’s suggestion, we expanded the content of the results section, and re-made the tables. The final four class solution revealed distinct and interpretable classes that were distinguished.

Response to reviewer #2 comments:

1. The authors didn’t mention the gender, age, or duration of experience of the participants. Do these factors, especially duration of experience, affect physicians’ competency?

Response: According to the reviewer’s suggestion, in the results section, we added the demographic characteristics and the comparison of physicians’ competency in the importance evaluation of eight dimensions.
2. Explain why only 15 top items, out of 103 total items, were selected. Was it possible to select higher number of items, or to select top items of each aspect of the questionnaire?

Response: Considering the reviewer’s suggestion, to ensure the accuracy and comprehensive of the classification results, the current study selected the mean of each dimension in the importance evaluation, and then performed latent class analysis on these 8 competency dimensions.

3. In conclusions, line 56: The word hospital is repeated.

Response: We are very sorry for our negligence of word repetition. We have made corrections.

Response to Editor’s comments:
1. Don’t start a sentence with an abbreviation, e.g. LCA, spell it out or use another word to start the sentence. Spell out first occasion of abbreviation, e.g. BIC

Response: We have made corrections according to the Editor’s suggestion.

2. Use sub-headings to add some logical structure to the methods section.

Response: As the Editor’s comment, we have use sub-headings to the methods section.

3. Line 60: “neural” probably should be “neutral”. Page 11 line 19: change “him/her” to “themselves” and the second “him/her” to “their”. Change “clinical basic ability” to “basic clinical ability” as it sounds better. Page 13 line 27: “and each of technical clinical ability.”, this makes no sense, it needs to be reworded.

Response: We are very sorry for our negligence of word repetition. We have made corrections.

4. “The 15 most important items”, how were these selected, there needs to be some information about how the top 15 items were selected.

Response: In order to ensure the accuracy and comprehensive of the classification results, we used the mean of eight dimensions for importance evaluation in the revised manuscript.

5. References are not used in conclusions, remove reference 32. Check all references to ensure they meet the BMC Medical Education format, and some references have the PubMed PMID number which is not part of the reference.
Response: The reference 32 have been moved to discussion section. Also, we have checked all the references to ensure the format.

We appreciate for the editor’s warm work earnestly, and hope that the corrections will meet with approval.

Thank you very much for considering the manuscript for potential publication.

We are looking forward to hearing from you soon.

Yours Sincerely,

Yuhong Zhao
China Medical University