Author's response to reviews

Title: Retention of Healthcare Professionals in Urban India Using Health Information Technology - A Path Analysis Study

Authors:

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Author's response to reviews: see over
Reviewer 1  Josue Mbonigaba

I would like the author to explain clearly the methodology by showing how each aspect of the methodology responds to the research question. For example, I would like to know how the factors influencing job satisfaction were found, how these were integrated in the data collection instruments. I do not see how the integrative model of attrition fits into the whole discussion.

The structure of the paper needs to be looked at in order to ensure coherence of the parts making the paper. The discussion of the paper is not focused. I would prefer factors influencing job satisfaction to be put into broad major categories and be discussed thoroughly and clearly or any other arrangement that would make the reading of the manuscript coherent and interesting.

Minor revisions
I did not look into minor revisions. Some information presented in some part (see example the method section in the abstract) shows incompleteness. If proof read by someone knowledgeable about presenting arguments clearly would recommend re-writing the abstract to make it more appealing. The next time the manuscript is submitted, I would recommend it to be proof read by a professional English editor.

Reply:
The research questions asked are highlighted and the methodology has been modified to link to them. The methodology also indicates that the tool includes questions that are related to the research questions. The methodology has been re-written to explain the links, the methods utilized.

The last para of introduction explains the integrated model approach adopted by the authors. Also the entire paper structure has been reformatted and the discussion part rewritten completely as per the reviewer’s comment. Proof reading carried out as suggested.

Reviewer 2  Pierre Gagnon

Major revisions:
1- The methods section needs to be more detailed. For instance, the sampling of health workers in selected hospital is not clear.
Reply : Method section rewritten. Sampling explained

2- Focus group discussion was only done in one hospital, but there is no justification to that.
Reply : Focus group discussion was done just to cross check the factors and reasons identified in the quantitative tool. The discussion and strategy developed is based on quantitative survey only.

3- The total number of questionnaires distributed is not mentioned.
Reply : Included

4- The questionnaire validation process also needs to be described.
Reply : Included

5- I suggest having a separate section for Results and Discussion. The discussion would need to compare the results with other studies on the topic. For instance, there are several systematic
reviews on factors influencing the retention of health care professional that offer a basis for comparison.

Reply: Done as per suggestion

6- Currently, the Conclusion is presented as a Discussion. I suggest removing the parts discussing the meaning of the results and referring to other work and place them in the Discussion. The Conclusion should be shorter and present the main findings with their implications for research and practice, as well as avenues for future work.

Reply: Changes made. The references mentioned by the reviewer seen. We were unable to do this in earlier draft as the paper was submitted before some of these references were published. We thank the reviewer for including these references because they help us revamp the discussion section as required.

I have also some minor suggestions:
1- In the Abstract, please define IT the first time that it is used.
2- On page 4, please define “lac” (6 lac physicians, 10 lac nurses, 2 lac dentists).
3- On page 5, the assertions in the last part of the 1st paragraph (starting with: Healthcare professionals perception and attitude…) need references.
4- On page 9, the sentence “57% of the respondents who took part in the study were men rest women » is incomplete.
5- On page 11, I’m not sure to understand the factor “hygiene factors (financial and non financial benefits)”. The term “hygiene” sounds more like cleanliness than work benefits
6- The references need to be checked because the style is unequal.
7- The Figures 1 and 2 are difficult to read (at least in the version I have reviewed).

Reply: All the minor revisions have been taken care of in relevant sections and clarifications included.

Reviewer 3  Ramesh Kumar
Title needs to be revised

Reply: This is one change we are unable to accomadate. The paper was written mainly to talk about path analysis model of the various factors identified. Our earlier article which identified some of the factors have been already published. In the current article the objective was to say how these factors are linked to each other.

Result: Please include some statistics and significance etc in the result section.

Reply: done

Conclusion: This is not conclusion these are recommendation as per my understanding. Please revise.
Methods: What were the selection criteria for these 20 hospitals? This is not random selection; please explain how you did the randomization for to select these 20 hospitals.

Reply: Explanation included

Why you have selected the nurses, doctors and administration (Is there any accreditation system like license to practice and valid registration for administration in India?). I think only Physician is the right target audience for this study.

Reply: The main reason for targeting nurses, administrators is the when we are talking about HIT we are not talking telemedicine only. It has not been adopted much in India. We are talking about use of HIS, EMR. In many hospitals (paper under submission) it is the nurses who are entering most of the data instead of doctors. Also administrators are trying to use HIS, dashboards etc for administrative and monitoring purposes. Since the idea was to see if implementing information technology in the form of HIS, EMR, CPOE etc can be seen as motivation for the professionals to continue in their job because they reduce their work load on the long run and increase quality, we have targeted them also.

Method of data collection was not clear. Author had approached the study participant through email. This is not recommended for focus group and qualitative findings. As the response rate is 60% which is highly objectionable. I wonder with this response rate, there is big concern about the validity and replication of this study. There should be at least 80% minimum response rate.

Reply: The study is quantitative study only. Only where the professionals did not find time to undergo survey directly we had asked them to submit the scanned form through email. There are studies where such low response rates have been seen. Since we are not calculating attrition rate and participation is voluntary we have gone ahead with 60% response. The FGD were done directly not through email.

Author did focus group another hospital which was not included in the sample and also did an exit interview from another hospital. That might contradict your results.

Reply: The FGD and exit interview was used to just provide an insight, to cross check to see if we are on the right track. We have not interpreted our results based on them.

Author has used the robust statistical methods but there is no any relevance has been shown with objectives of the study.

Reply: We have included them

Results: Not matched with the objectives.
Reply: Our objective was not to mention which factor affected attrition and how. Our focus was to see if there are factors affecting attrition via job satisfaction and intention to stay, see if information technology implementation was one among them. This our results indicate so.

Currently, we are trying to pilot test our strategy in two hospitals in Delhi.