Author's response to reviews

Title: Psycho-social impact of visual impairment on health-related quality of life among nursing home residents

Authors:

Mahesh Kumar Dev B.Optom (maheshdev2002@gmail.com)
Nabin Paudel PhD student (paudel.nabin@gmail.com)
Niraj Dev Joshi B.Optom (nirajdevioshi@gmail.com)
Dev Narayan Shah MS (dn_shah@hotmail.com)
Shishir Subba PhD (shishirsubba21@gmail.com)

Version: 4 Date: 10 June 2014

Author's response to reviews: see over
Reviewer's report: I

Title: Psycho-social impact of visual impairment on health-related quality of life among nursing home residents

Version: 3Date: 20 May 2014

Reviewer: Amanda Elliott

Reviewer's report:

Major Compulsory Revisions

General Comment:

This manuscript presents findings that visual impairment impacts health related quality of life in nursing home residents in Nepal. This work builds upon this group’s previous work in this area and is the latest in a string of publications on from this same study. Overall, I find this article to be interesting although I do have some specific points on which clarification would contribute to the strength of the article. These points are detailed below.

We are very glad to hear that the reviewer thought our study would build upon our previous work in this area and also would like to thank the reviewer for critically analyzing our manuscript.

In this revision, we have tried our best to clarify the points suggested by the reviewer.

Overall:

Please conduct a careful review for English language grammar errors, one example is pg. 3, 3rd paragraph, 1st sentence would read better as: Population aging has become an important social issue worldwide and improving quality of life is among the biggest challenges for (who, health care providers? please fill in).

We agree that there were quite a few errors in our sentence structures and word arrangements. But, in this revision we have sought help from a native English speaker and writer and have tried to avoid any such errors as much as possible.

We have rearranged these sentences accordingly as suggested.

Abstract:
In the methods, please say VA worse than 6/18; using less than becomes confusing when you then use a $>\$ symbol.

We have changed as suggested in this revision.

**Intro:**

I’m not sure I completely agree with the last paragraph of the intro. The authors reference several studies that have looked specifically at HRQoL in NH residents worldwide. Perhaps the authors mean this concept is not well understood in Nepal, or studies are lacking there specifically. I think the authors can amend this section by specifying that there have been previous studies investigating this exact concept, their general findings (as more detailed findings are presented in the discussion), but that these were conducted in other countries.

We meant to say that there are a few researches related to health-related quality of life. Although, studies of these kinds have been conducted worldwide in developed countries but to the best of our knowledge, this is first of its kind in developing country like Nepal and so is unique.

We have amended this section as suggested.

**Methods:**

Please specify the distance at which the Near Visual Acuity card was held.

We have specified the distance at which the Near Visual Acuity card was held.

Last sentence in first paragraph under Assessment: do you mean that complete exams were carried out in all participants? Or did the optometrist really do exams in every resident regardless of agreement to participate in the study?

We meant that complete ocular examination was carried out in all 364 residents but interviews required for this study were completed only by 272 of those participants who gave consent for the interviews and who had no any disability that prevented us from conducting interviews (as mentioned in the METHOD: Participants; 2nd paragraph).

Please add to the description of the SF-36. Include how it is scored, and what total score ranges are and what these mean---this description becomes necessary later to be able to interpret the results.
We have added some more information about this in the 2nd and 5th paragraph of assessment (Under METHODS).

In the paragraph regarding the face-to-face interviews the authors talk about other research assistants that helped administer the questionnaires. Is the agreement they mention regarding a formal inter-rater reliability process? If yes, what criterion of reliability did you reach/find acceptable? If no, then please revise this section to make it clear what agreement was calculated.

Unfortunately, no formal inter-rater reliability process was used in this study. However, research assistants were adequately trained by the principal author. Mock administration of the questionnaire was also performed among the assistants. They were allowed to assist once the principal author assured that there would be no significant difference between the scores obtained by any two assessors.

Results:

Under the near and distance acuity section, please add the word distance to the second paragraph to make it clear this description of distance VA.

We have added the word ‘distance’ in this revision.

Under the health-related QOL section, 2nd paragraph: are you talking about SF-36 composite scores, physical/mental scores? All three?

We are talking about SF-36 composite scores. We have mentioned in this revision.

Same section, paragraph 3: Please describe how only 3 of the subscales reached statistical significance for differences between groups. Then add to the discussion thoughts as to why these three may have been affected by VI more than the others.

We have added reasons about this in both result and discussion section as suggested.

A description of the analytical tests ran and rationale is typical in this section and should be added.

Appropriate statistical tools were applied depending upon the distribution of the variable values. Parametric for normally distributed and non-parametric for non-normally distributed. This has been added in the methods section. Also, each test used has been specified in results.

Discussion:
1st paragraph, third sentence: here is where I think a better description in the methods regarding the scoring of the SF-36 would come in handy. If the reader knows the total score is 100 then a composite score below 50 is more easily interpreted. Additionally, it would be of benefit to add a reference or two regarding what SF-36 scores are in older adults who are not institutionalized since both groups of NH residents (with and without VI) had low SF-36 scores in the author’s opinion.

We do agree with this and we have mentioned about this in this revision.

We have added two references related to SF-36 scores in older adults who are community dwellers i.e. who are not institutionalized).

2nd paragraph: please add in which country the three references conducted their studies.

We have added the name of countries in those references.

3rd paragraph: The argument being crafted here is not clear to me and I don’t understand the final sentence. I suggest revising this paragraph to focus on the author’s thoughts as to why the MC score was lower than the PC in their specific population versus the populations studied in the other references mentioned.

We have revised and added some more information in this revision.

4th paragraph: This paragraph begins to address this reviewer’s overall thought about the present study. There are nursing home specific quality of life measures available that have been used in several studies; even this group of authors has published those findings. I do recognize that the authors suggest the strength of the current study is to show the results of HRQoL using a widely used instrument; however a limitations section is needed in the discussion. Among the limitations is that this tool is not a vision-specific measure. The results should then be more fully discussed in comparison to QoL findings using vision-specific measures. Perhaps a concluding point would be to use more sensitive, population specific measures when they exist.

We do agree with this. We have improved the discussion section in the manuscript as suggested. We also have discussed the limitations of the study in this revision.

Any other limitations to mention to this study?

We have included other limitations in this revision.
**Recommendation:** The second suggestion for future work has been done in nursing home residents and found that HRQoL does increase in response to vision improving interventions, again these studies have been in different populations, but could be mentioned here.

We do agree with this. We meant to say that these studies are lacking in developing countries like Nepal.

Table 1: please add distance to the title (based on present distance VA)

We have added in this revision.

**Level of interest:** An article whose findings are important to those with closely related research interests.

**Quality of written English:** Needs some language corrections before being published.

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:** I declare that I have no competing interests.
Reviewer's report: II

Title: Psycho-social impact of visual impairment on health-related quality of life among nursing home residents

Version: 3 Date: 17 May 2014

Reviewer: Colm McAlinden

Reviewer's report:

Dev et al.

Interesting paper and the results are not surprising but it is good to have confirmation and in particular in nursing homes. Do residents of nursing homes in Nepal have access to eye examinations?

We are glad to hear that the reviewer found our paper interesting. We have tried our best to revise the manuscript according to the reviewer’s comments.

Nursing home residents in Nepal often do not have the same access to eye care as do persons living at their own homes. Inadequate eye-care services are the problems in nursing homes. There is a shortage of eye care professionals who routinely serve and perform comprehensive eye care examination in nursing homes.

One flaw is the non-use of Rasch analysis to score the questionnaire. Please discuss this as a limitation and provide evidence of the benefit of Rasch analysis.

We do agree with this. We did not perform Rasch analysis. We support the value of Rasch analysis. We have discussed this as limitations and provided evidence of the benefit of Rasch analysis in this revision.

Here are the papers which should be cited which provide evidence of the benefit of Rasch analysis:


Validation of the National Eye Institute Visual Function Questionnaire-25 (NEI VFQ-25) in Age-Related Macular Degeneration IOVS 53 (3), 1276-1276.

We are very grateful to the reviewer for providing us the list of references that could help us in discussing the benefit of Rasch analysis. We have reviewed the above papers thoroughly and cited in this revision.

How were patients recruited?

Our participants included residents from randomly selected seven nursing homes of the Kathmandu Valley. All residents were enrolled in the study who gave consent to the study.

What were the causes of visual impairment in your study? What about cataract?

Cataract was the leading cause of visual impairment and blindness which was followed by age related macular degeneration, corneal opacity, glaucoma and macular scar.

We had not included detail about this in this paper because this paper was primarily aimed at exploring the impact of VI on health-related quality of life (HRQoL) among nursing home residents.

We have further included and explained about this in the revision (RESLUT section, subheading: Near and distance acuity and visual impairment and after the first paragraph of the DICUSSION section).

Do residents have access to cataract surgery? Please consider the findings of this study in your discussion: Subjective quality of vision before and after cataract surgery. Archives of ophthalmology 130 (11), 1377-1382.

Nursing home residents often do not have the same access to eye care as do persons living at their own homes. They do not have access to cataract surgery. The reasons for cataract to be the leading cause were due to inadequate eye care services and high prevalence of mature cataract and inappropriately low use of cataract surgery.

The major reason for the low use of cataract surgery among nursing home residents of Nepal is due to lack of eye care professionals who routinely serve nursing home residents. Ocular health is still not included in the national health policy of the country.
We have considered the findings of the above mentioned paper in this revision (after the first paragraph of the DISCUSSION section).

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.