Author's response to reviews

Title: The direction of research into visual disability and quality of life in glaucoma.

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Author's response to reviews: see over
Dear Sir/Madam,

We thank both reviewers for their comments on the above manuscript and have revised it accordingly. Please note that all revisions have been highlighted clearly in yellow. Our responses to each reviewer’s comments are summarised below.

**Reviewer 1: Roberta McKean-Cowdin.**

We are grateful that the reviewer believed the article to be of importance in its field and thank her for her informed comments and suggestions.

**Major Compulsory Revisions:**

1) The authors clearly describe the methods used to identify the literature for inclusion in the review but never list the relevant literature. This could be in an appendix, but the completeness or scope of the papers included can’t be evaluated by the reader. For example on page 12, the authors state "In addition, 11 studies included a novel questionnaire..." but the manuscripts are not referenced. 51 papers may be too many to list in a table in the paper, but there should be an appendix and when select summary characteristics are given about sub-groups those papers should be referenced. An appendix could easily be incorporated with the paper.

We agree with this helpful suggestion. We have added an appendix listing the relevant ‘QoL assessment in glaucoma’ literature from the search. The appendix organises the 51 papers under relevant categories as specified in the section entitled “Methods used in QoL assessment in glaucoma”. This enables the reader to easily refer to the articles of interest. We hope the editor will allow this material to appear as a supplementary file, but have added this at the end of the main document for the time being. The references may be modified to any suitable form.

**Discretionary Revisions:**

1) On page 10, the authors describe the frequency of QOL papers in the last 10 years by disease. Papers on Glaucoma QOL are quite low as described. However, in 2009 the frequency of glaucoma QOL publication was more similar (1.2%) to other phenotypes, suggesting that the focus on this topic has increased. The time window has an important impact on the conclusion, so that it may be important to discuss that in more recent years the focus on this area of research has increased. If this was only a pattern in 1 year, then that should be noted.

This is an interesting point; although on the whole glaucoma has received comparably less interest over the last 10 years, it does appear from the findings in 2009 that there has been an increase in the frequency of QOL glaucoma publication. We have noted this and added some comments as suggested (page 10). We retained the message that the overall results of this comparison indicate that research in
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QoL in glaucoma has been *more neglected on the whole* compared to some other example chronic conditions [page 10].

2) On page 11, the authors discuss that glaucoma patients are often unaware of the extent of their visual loss and that their symptoms are less noticeable compared to other conditions. I agree that this is true, however the QoL literature suggests that glaucoma patients perceive an impact relatively early in their disease as measured by visual field loss.

Whilst it is true that some studies have found that patients with earlier stage glaucoma perceive some effects of the disease (and we have added specific reference to these on page 11), the complicated nature of glaucoma (i.e. perhaps due to filling in effects, one eye compensating for the other) means that it is unlikely both themselves, and others, are aware of the true extent of their disability. The comments on page 11 are mainly there to highlight the point that glaucoma can be described as an ‘invisible’ disability in the sense that its effects are less obvious than in other conditions such as PD, and that this may be why the need for research relating to the impacts of the disease has received less attention. Future research may be able to uncover further information regarding the nature of visual disability faced by glaucomatous patients. We have modified the wording on page 10/11 in an attempt to make it clearer that patients may be unaware of the *full* extent of their visual loss.

Reviewer 2: Jin-Wei Cheng

Minor essential revisions:

1) Page 9: In the sentence ‘Figure 1 illustrates an increase in the number of QoL studies related to glaucoma between the early 1990s and the present day;’ day may be change to year.

2) Page 9: In the sentence ‘those with the highest percentage of QoL studies for the last 10 years were Parkinson’s Disease (1.6%; n= 284 out of total of 17296 studies for PD),’ it may be deleted “for PD”.

We thank the reviewer for pointing out these stylistic oversights and have modified the manuscript accordingly on page 8 and 9.

We sincerely hope that our prompt revisions are deemed satisfactory by the editorial team and that our manuscript is thus considered suitable for publication in BMC Ophthalmology.

Yours sincerely,

Fiona Glen