Reviewer's report

Title: Comparison of the Adult Strabismus Quality of Life Questionnaire (AS-20) with the Amblyopia and Strabismus Questionnaire (ASQE) among adults with strabismus in China

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Reviewer: Jill Carlton

Reviewer's report:

Review of resubmitted manuscript “Comparison of the Adult Strabismus Quality of Life Questionnaire (AS-20) with the Amblyopia and Strabismus Questionnaire (ASQE) among adults with strabismus in China”

1. Abstract – no issues
2. Introduction – no issues
3. Methods
   a. Now included dates of data collection as suggested
   b. Further detail was asked to explain why subjects who were recruited were available to participate in the study. This is still not fully clear to the reader. It could be suggested that potential participants sought medical advice as they were either symptomatic, or that they wished to have a procedure to improve cosmesis. The sample could be viewed as being biased – these are individuals who are unhappy with something (they must be, as they sought medical attention). Your “strabismus participants” are not representative of all adults with strabismus in China. There will be adults with strabismus in China who are asymptomatic and/or have no concerns about the cosmesis of their ocular alignment. The title of your manuscript is therefore misleading, for it is not true that all adults with strabismus in China are as you described, for you have a biased sample. You do discuss this somewhat in the Discussion section of the resubmitted manuscript. The reader needs clarity in the Methods as to why those strabismus patients were at clinic (and available to take part in the study).
   c. Furthermore, it is unclear in the Data Collection section as to whether questionnaires were issued BEFORE or AFTER they had seen the clinician. So had a decision been made as to whether a participant was/wasn’t to receive surgery? It could be argued that participants over exaggerated their symptoms/responses to the questionnaires if they thought that this would help them get surgery.
   d. In the Data Collection section, you state that subjects were left alone to complete the questionnaires. You then state that the AS-20 was given first and then the ASQE for each participant. If they were left alone to complete the questionnaires, how do you know they completed the AS-20 first? If participants did all complete the AS-20 first then this could have led to possible order effects.
This should be mentioned in the Discussion section. In addition, if participants were unsupervised, how can you vouch for the quality of the data/responses? Again, this should be mentioned in the Discussion.

e. In the Data Collection section, you state that there were no statistically significant differences found between the study groups in terms of age, gender, education or SES. This should be stated in the Results section, and not a sub-section of Methods.

4. Results

a. I am unsure as to how you can report “normal” scores from the AS-20 and ASQE questionnaires. The questionnaires were designed to detect problems with people with strabismus, so surely your control/orthophoric group should be scoring virtually 100 using these instruments. The fact that they are not is worrying! Why are their scores reduced? This should be questioned. The section on Proportions of subnormal scores is not really relevant is it?

b. You state the correlations between the NEI-VFQ-25 and the instruments. Double check the format/style of the "-" to describe the range, as per journal specifications. The text describing this could be improved for the reader. The NEI-VFQ-25 correlated weakly with the AS-20, and moderately with the ASQE. Did you investigate whether the AS-20 and ASQE correlated with each other?

5. Discussion

a. The amended manuscript includes consideration of floor/ceiling effects of the instruments (as suggested), but this is not discussed. Definition of accepted floor/ceiling effects should be given (I acknowledge that different psychometricians will state different values). You state 20% - on what basis? Massive ceiling effects were seen. Explain to the reader what this means, perhaps that it is to be accepted as you have a bias/selected population who have sought medical advice as they are symptomatic or unhappy. But that this could be viewed as a potential weakness of the instruments – are they really capable of assessing the whole range of the spectrum of severity?

b. The comment about Rasch and modern test theory implies that Leske et al (ref 31) first used Rasch to modify questionnaires, when this not the case. This is the first time you have mentioned Rasch. In this clinical journal, will the reader know what Rasch is, and why some people advocate it? In this section you mention DIF. This is the first time you have ever mentioned DIF. You could still make the point you are making here without using the phrase – I wonder if using the term DIF confuses things for the reader?

c. The “take home” message of the paper could be made clearer to the reader in the final paragraph.

6. References

a. Some of the references have not been formatted correctly (journal title abbreviations).

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

Quality of written English: Acceptable

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