Reviewer’s report

Title: Correlation between subjective and objective hearing tests after unilateral and bilateral cochlear implantation

Version: 0 Date: 14 Sep 2017

Reviewer: Sheila Pratt

Reviewer’s report:

General Comments:

This study looked at the relationship between domains/subscales on two patient questionnaires - Speech, Spatial and Qualities of Hearing Scale (SSQ) and the Nijmegen Cochlear Implant Questionnaire (NCIQ) and four related behavioral auditory perceptual measures when administered to adults with bilateral and unilateral cochlear implant fittings. The correlations were weak to modest with some significantly different from 0. The relationship between the tests and questionnaires appeared to be weaker for the patients with unilateral cochlear implants than for the patients with bilateral implants. This was particularly true for the relationship between spatial domain of the SSQ and a sound localization test.

The results of this study add to the literature but are not surprising in that the perceptual tests and questionnaires are not expected or intended to assess the same things, even when they focus on the same general attributes. This study just affirms those differences and speaks to the need for using a range of measures to fully capture the status of cochlear implant patients.

Specific Comments:

The background and discussion portions of the paper were clearly written but the methods and results were a bit vague, and as a result more difficult to read. The methods and results sections lacked specificity.

The analyses were overly simplistic. The authors could have use more advanced statistics and dug deeper into the performance of their participants on the particular tasks. It would have made for a more interesting paper.

I don't believe that correction for the multiple correlations was really needed and that it was applied correctly. The corrections seem too conservative given the use of false discovery.

Page 7 - lines 32 - 45: This section should be expanded. It reads as if only the SSQ2 vs localization correlations shown in Table 2. It would help if all of the results were described throughout the results section.

Page 7 - lines 49-59: The authors talk about differences between groups but don't really test it. Other stats could get at those differences more directly.
Figure 1 - The graphs are blurry and it would help if regression lines with r2 values were plotted for each group.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

No

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

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