Peer Review File

Article Information: https://dx.doi.org/10.21037/ajo-21-24

Reviewer 1: Very well written paper with a clear well designed study protocol and appropriately reported outcomes. Appropriate and well described tables.
Many thanks for this favourable review of our research paper.

Reviewer 2:

1. **Comment 1:** General overview.

Reply 1: We are delighted to receive this positive review of our project.

2. **Comment 2:** *I think references are out of sync and may be missing one - can the authors please check the referencing:*

Line 43/44 - reference 4 links to :
Homøe P, Heideman C, Damoiseaux R, et al 2020, Panel 5: Impact of Otitis Media on Quality of Life and Development. Int J Paediatric Otorhinolaryngol Mar;130 Suppl 1(Suppl 1):109837.
Think it is reference 3 that is the OM6 QOL paper - which might mean that line 41 reference 3 might be missing??

Reply 2: The reviewer is correct. This should have been reference 3.
Changes in the text: Line 43/44 – the reference has been changed to reference 3 (Rosenfeld)
The earlier reference to Rosenfeld (line 41) remains correct;
i.e., (From Rosenfeld) "*Conversely, some children with an optimal middle ear status (profile level 1 for both ears) may have a poor HRQL because of recurrent acute otitis media that is transient, but severe*". Rosenfeld *et al*, 1997

3. **Comment 3:** *Line 129-130 (now line 134-136)- is this sentence needed? Seems to repeat the previous sentences.*

Reply 3: The comment is acknowledged as valid.

Changes in the text: The sentence has been removed.

4. **Comment 4: Data management and analysis**

Line 164-166 - ICC - don't understand what this means or adds to the findings - could this be explained in plainer English or elaborated on in the discussion? Or is it needed at all?

The sentence in the text has been altered to say;
Intraclass correlation coefficients (ICC) for each mixed model were provided to describe the correlation of quality of life within a participant over time.

Line 209 -212: In the text I have removed the interpretation of the ICC. The interpretation is not really needed for the audience, but reporting the ICC values is important for a) calculation of sample size in any related future research, and b) if results were to be included in future meta-analyses.

Do you need table 2 and 3 or could they be combined in some way - table 3 outcomes - better to describe each domain than just a, b, c, etc

The tables have been combined in a new version, labelled Table 2, at the end of the manuscript, page 25.
At line 230 the term "table 3" has been removed.

Reply 4:

5. **Comment 5 – Discussion**

How does this papers QOL scores across all domains compare to the Adelaide paper also using OM6? If similar it assist in validating its use in Australian population. How does it compare to the original papers scores and other international use of this tool?

Reply 5: The overall QoL score for this study was not dissimilar from the score for the South Australian cohort. While we report a change in the mean OM-6 from 3.94 down to 2.07, Chow *et al* reported a finding of 3.43 down to 2.07 following VT surgery. [7] In both studies the changes in all domains and the change in total OM-6 score achieved significance. Although the similarity is interesting, it should be noted that the Adelaide study excluded patients having other ENT surgery, while our study included all VT patients on the ENT operating lists, regardless of other concurrent surgery. Our primary aim was to test the acceptability of the use of the OM-6 survey to the Aboriginal and non-Aboriginal parents/caregivers in our health service region, as opposed to a rigorous validation of the study tool.

Rosenfeld *et al* also reported exclusion criteria, related to perforation, prior VT insertion, other OM pathology, developmental issues and parent/caregiver English language ability. [3] In order to assess the validity of the tool to measure the efficacy of a surgical intervention our study would require more detailed knowledge of patient medical history, which was not available to the research team. However, it was reassuring to demonstrate that, within our health service population, the study tool was well accepted by parents and caregivers.

Changes in the text: the two paragraphs above have been added to the paper at line 318.

6. **Comment 6 -** *Should the limitations come before conclusions?*

Reply 6 - The limitations section has been moved to follow on from “Study Participants”, as the limitations pertain to the discrepancies in patient medical histories and in 1st and 2nd response rates from parents/caregivers.

Comment 7

There may be a selection bias towards Indigenous families who have access to a well resourced public health care service. Do the authors feel these QOL and epidemiological results would be similar across more remote communities for whom barriers to access might be greater? And would they expect surgical outcomes QOL to be similar?

What are the implications of these results for the patient group studied and do the authors feel these results have implications for service delivery in other parts of the country?

Reply 7: The differences between factors influencing access to ear health care and entry into a specialist pathway in urban, regional and remote communities can be wide ranging and are not well documented across Australia. We reported the potential of patient numbers bias introduced by the existence of a health service pathway but did not explore patient service access due to limited time on operating days.
Although data were not collected, anecdotally, some parents, including those in urban metropolitan areas, reported alarming delays in gaining access to specialist care, which may or may not be the case in remote regions, depending on the types of services available. Those questions require further investigations. The current situation might change in the future, depending on the uptake of telemedicine and video-otoscopy but this was not considered during the study reported here, as people had already been on the waiting lists for some time. The concern about waiting lists across the region was a motivator for conducting the study, in a sense to put children's ear health on the 'health service radar'.

This study looks at QoL in children receiving VTs but we did not assess the value of the VT intervention as a stand alone factor.

In this study one of the most telling features of the parents/caregivers capacity to engage was the overall literary competence, which has been reported in the Discussion section.

The implications for the children in this cohort are that surgical intervention is an efficacious treatment for improving quality of life of Aboriginal and non-Aboriginal children living with otitis media in the HNELHD of NSW. This has been stated in the Conclusion section.