

Hearing Aids for Tinnitus:

A Comparison of NAL-NL2 and DSL v5 Prescriptions

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Introduction

There is currently no gold standard or agreed protocol for management of tinnitus with hearing aids.

Research into best optimisation of hearing aids for hearing loss and tinnitus is still largely undocumented and heavily criticised for not being robust.*

This study directly compares NAL-NL2 and DSL v5 prescriptive procedures to ascertain any patient preference for therapeutic effects on tinnitus.

Method

A randomised crossover design (AB/BA) was used.

The study comprised of 40 adult participants with mild-moderate sensorineural hearing loss and tinnitus.

Tinnitus intrusiveness was evaluated using questionnaires at three intervals – pre-intervention, 3 months with prescription 1 (3 months total) and 3 months with prescription 2 (6 months total).

Results

A repeated measures ANOVA showed that there was a significant difference between pre-intervention and both prescriptions ($p < 0.001$), however post-hoc analysis determined that there was no statistical difference between NAL-NL2 and DSL v5 ($p = 0.207$).

Two trends were observed: the NAL-NL2 prescription was preferred for improving hearing ability and the DSL v5 prescription preferred for providing more tinnitus relief.

62.5% of participants reported that they were less aware of their tinnitus while using hearing aids set to REMs using the DSL v5 prescription compared to NAL-NL2.

Following the completion of the study, more participants opted to keep the DSL v5 settings ($n = 25$), compared to the 15 participants who chose to remain on NAL-NL2.

Conclusions

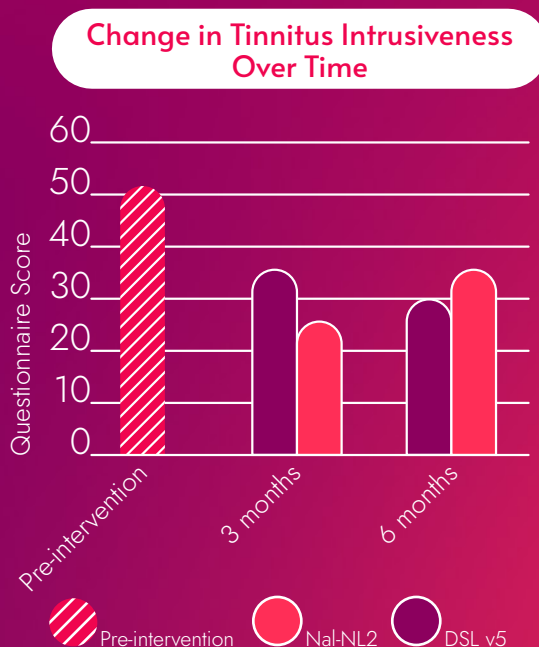
Hearing aids are beneficial for individuals with hearing loss and tinnitus and reduce tinnitus intrusiveness.



Hearing aid management for this client group should be initially set up in accordance with national recommendations (including performance of Real Ear Measures), but there should be more freedom for adjustments based on individual feedback post-fit.

Practitioners should also consider altering the initial prescription formula (if it has not been effective) and providing a volume control or different program options to positively influence outcomes.

The subjective nature of tinnitus affects the fitting outcome and there are individual factors to consider. For example the most cited reason for choosing NAL-NL2 was speech intelligibility.



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