Characterization of Trends in Current Audiologic Practices

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Introduction

For decades, professional guidelines for adult hearing aid provision have included recommendations for specific audiologic practices that optimize outcomes with this population. Recommended practices such as using real-ear measurements to verify that hearing aid outputs match validated prescriptive targets and offering post-fitting support for hearing aid users repeatedly have been demonstrated to result in superior outcomes (e.g., Almufarrij, et al., 2021). Further, these practices rely on knowledge and skills that are uniquely within audiologists' expertise. Yet, previous trends from 2014 show that <50% of audiologists verify the performance of hearing aids and validate treatment outcomes. Given recent professional uncertainties about the impact of alternative service-delivery models, it seems likely that hearing aid dispensing audiologists would seek to incorporate recommended evidence-based practices into their standard care protocols to demonstrate the value added by professional services. This study aimed to characterize trends in current audiologic practices. Specifically, we sought to answer the following research questions:

1. **What clinical practices do current U.S. audiologists report as part of their standard care for the adult population?**
2. **How have these trends changed over the past decade?**

Methods

Design: Descriptive survey
Recruitment: Audiologists were recruited to take part in an online survey via social media.
Survey: Participants answered a 14-question survey using Qualtrics online survey software. These questions assessed frequency of implementing modern practices in hearing aid fittings.
Participants: 77 audiologists completed the online survey. International respondents (N=1) and those who worked in pediatric settings (N=5) were excluded from the analysis. The remaining 71 audiologists (68 females) represented 21 U.S. states. The table below represents their demographics.

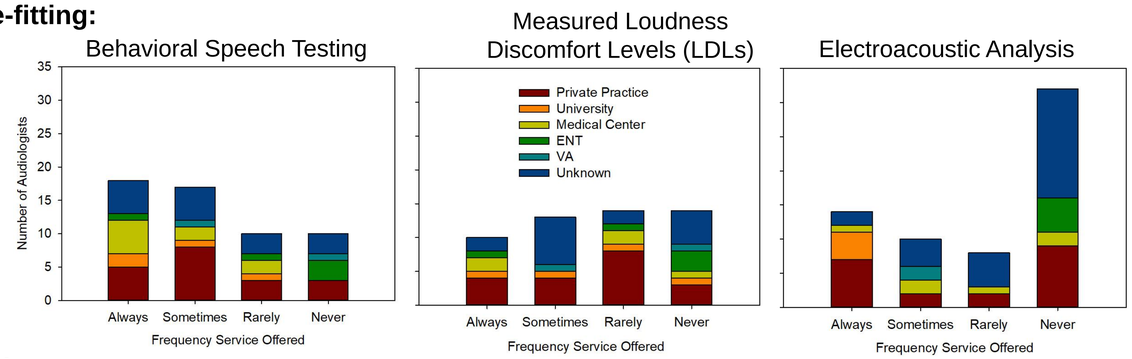
Demographics	n	%
Setting		
Private Practice	22	29.7
University	6	8.1
Medical Center	4	5.4
ENT	6	8.1
VA	3	4
Unspecified	33	44.6

Results

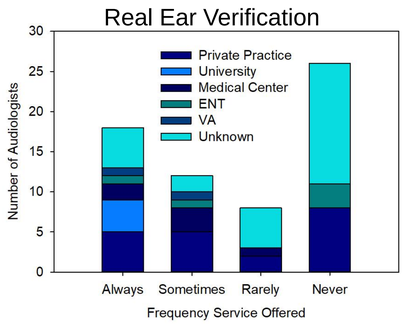
1) What clinical practices do current U.S. audiologists report as part of their standard care for the adult population:

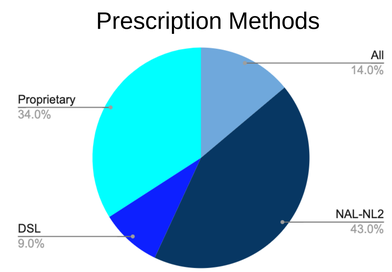
>97% of audiologists reported doing comprehensive audiometry, otoscopy, and tympanometry as part of their standard test battery, although only ~60% of audiologists reported performing complete immittance testing including acoustic reflex thresholds and acoustic reflex decay. The following graphs depict trends in practices specific to pre-fitting, fitting, and post-fitting phases of hearing aid provision.

Pre-fitting:

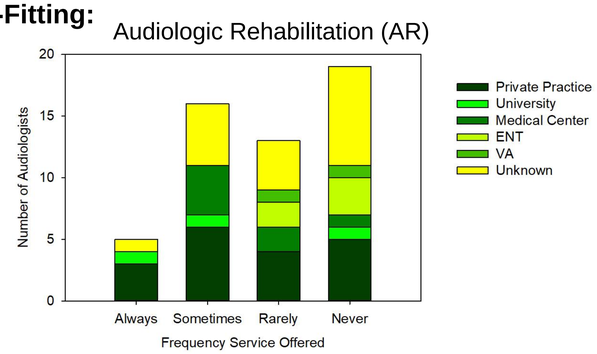


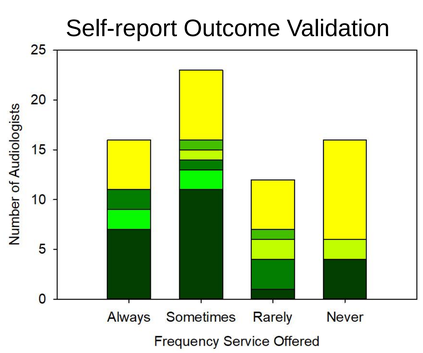
Fitting:





Post-Fitting:





2. How have these trends changed over the past decade?

Previous data from the 2014 *ASHA Audiology Surveys* showed that few audiologists actually verify performance of hearing aids and validate treatment outcomes. This current survey is consistent with these results showing that fewer than half of practicing audiologists adhere to best practices for hearing aid provision**.**

Discussion

Despite professional associations' recommendations and research evidence in favor of providing comprehensive audiologic rehabilitation when fitting and dispensing hearing aids, fewer than half of surveyed audiologists reported adhering to these guidelines. These trends are similar to those reported in 2014. It is of interest that the 4 respondents from University clinics collectively reported always performing electroacoustic analyses and real ear verification; but other practices like behavioral speech testing, measured LDLs, and supplementary AR were not always modeled in clinical laboratories. This could mark a shift in expected practices for new graduates away from traditional training models toward a cost-effectiveness/business model of clinical training. It should be noted that those audiologists who elected to respond to this survey were active in online audiology forums, potentially skewing the results to reflect the practices of professionals with technological self-efficacy and who are more engaged in current professional discourse. Further, the nature of this survey is likely to result in self-selection bias. It is probable that those who offer a diverse portfolio of services were more likely to choose to respond to a survey of this nature. Finally, it is possible that some respondents over-reported the frequency that they provided certain services. As a result, this small sample likely overestimates the frequency that these services are offered by the majority of hearing aid dispensing audiologists. In the modern landscape of clinical care, it is critical that professional audiologists operate at the top of the scope of rehabilitative practices in order to demonstrate the positive impact that professional services can provide when compared to outcomes with alternative models of hearing healthcare.

Future Directions

Several of the audiologists reporting using best practices agreed to participate in a second phase of this research. This phase will establish what modern hearing aid users report in terms of benefit, satisfaction, residual activity limitations, participation restrictions, impact on others, and overall quality of life when devices are fitted using best practices. These data will serve as updated norms for several validated questionnaires, including the APHAB, SADL, & IOI-HA.

References

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