

Applicability of a Progressive Access to Speech Sounds Protocol for Hearing Aids with Adults



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Introduction

Hearing impairment is the second most common chronic condition worldwide. Effective management involves verification and follow-up to optimise hearing aid fitting. This study hypothesizes that progressive gain adjustment—prioritizing comfort and gradually increasing speech access—enhances neuroplasticity, habituation, and consistent use. Supporting strategies like RSME and SII aim to achieve adherence and audibility within the NAL-NL2 prescriptive target range.

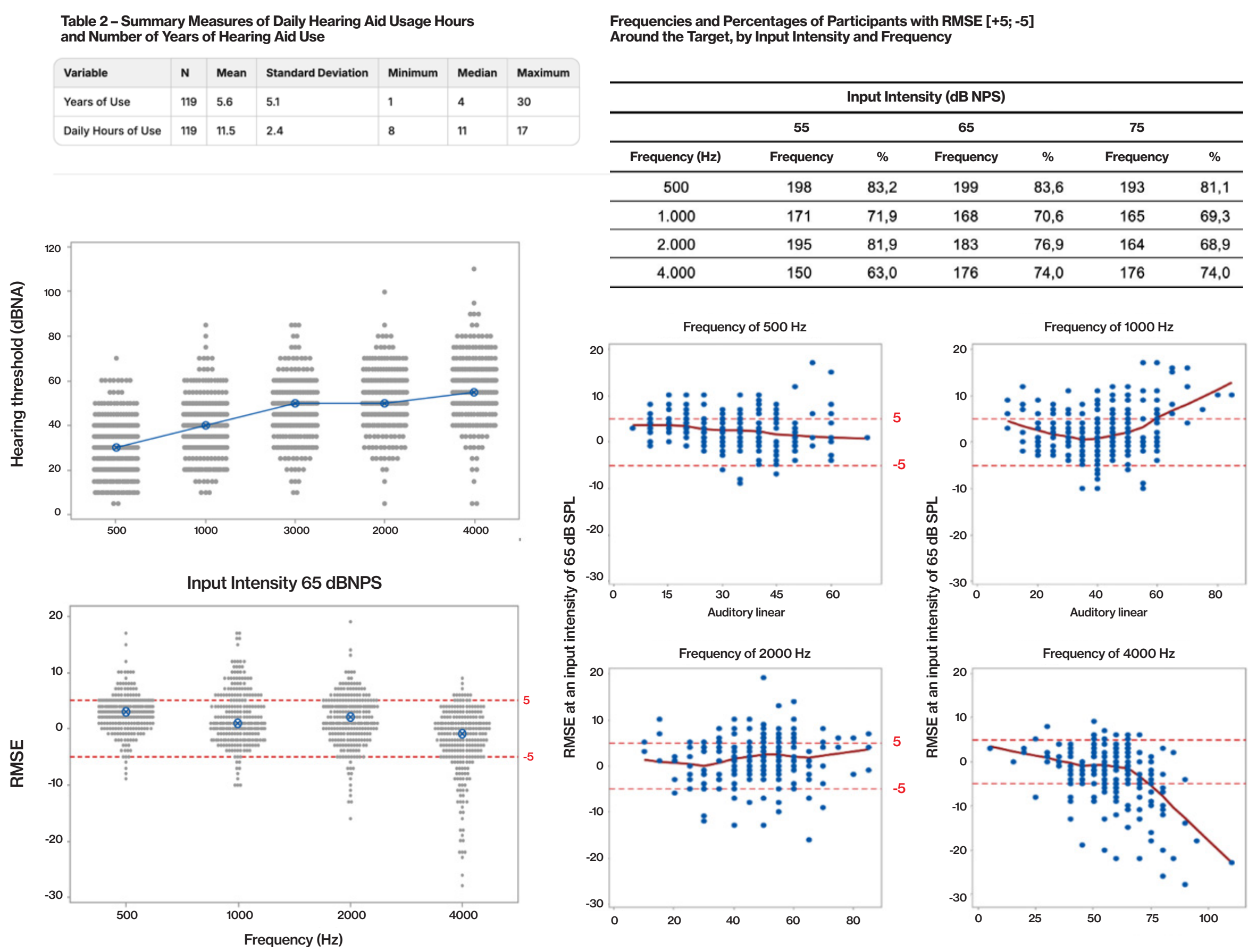
Methodology

A cross-sectional study analyzed records of 119 patients (2001-2024) undergoing auditory rehabilitation in São Paulo - Brazil. Included were well-adapted hearing aid users with good adherence, following a standardized progressive access protocol over the years. All participants underwent uniform one-hour assessment sessions. Data from real-ear measurements (REMs) of 238 ears were analyzed, considering symmetrical hearing loss (Study 1). In Study 2, the same progressive adaptation

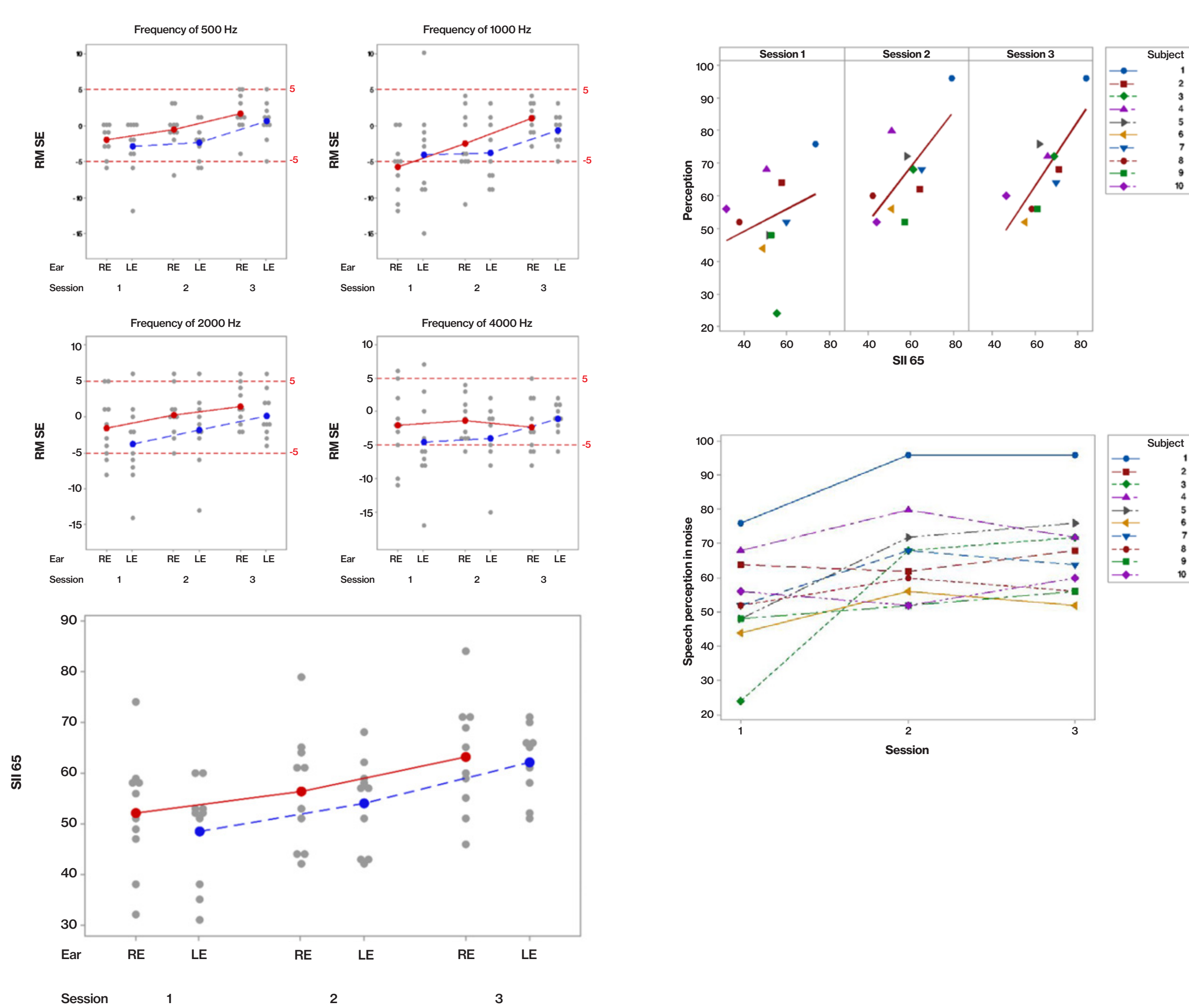
protocol was applied to 10 new users attended in a public health system (SUS - DERDIC/PUC-SP).

The study was approved by Ethics Committee of Pontifical Catholic University of São Paulo (CEP-PUC-SP), Protocol No. 5.727.856.

Study 1



Study 2



Discussion and Conclusion

The study observed adjustments close to the RMSE standard [+5; -5], validating results of well-adapted experienced users with expected SII values in this group. The study with new users showed good results with the applied protocol, which approached the expected outcomes after 4 months of adaptation, with better speech perception in noise and subject satisfaction. The research highlights the importance of initial consultations with an audiologist in the adaptation process, which can be a key instrument for device accommodation in adult patients. The SII measure and analysis of variations by RMSE can be tools for supporting progressive access as a fine-tuning strategy for hearing aids in adults.

Overall, this research reaffirms the essential role of audiologists in guiding adult patients through personalized rehabilitation, ensuring effective device use and improved quality of life. It also suggests steps for progressive fitting, that can be useful for less experienced clinicians.

References

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