

Pediatric Hearing Aid Daily Wear Time is Significantly Impacted by Clinician-Family Language Discordance

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INTRODUCTION

For children with hearing loss who use spoken language as their method of communication, full-time use of amplification is critical for facilitating speech and language development. One under-studied barrier to effective counseling for families of children with hearing loss is language discordance between the audiologist and the family. For families with limited English proficiency, defined as individuals who speak English less than "very well," communication with audiologists is often limited because the majority of audiologists in the U.S. are monolingual and speak primarily English.^{2,3}

PURPOSE

To evaluate the potential contribution of limited English proficiency on daily hearing aid wear time for children who are deaf or hard-of-hearing.

METHODS

Patient Population:

- (1) English proficient (n = 69) and (2) LEP (n = 24)
- No significant between-group differences in gender or age at hearing loss diagnosis or hearing aid fitting
- All diagnosed with bilateral, permanent hearing loss with PTA at .5, 1, and 2 kHz \geq 30 dB HL and initial air-conduction hearing aid fitting before 5 years of age
- Exclusionary criteria: PTA > 90 dB HL, auditory neuropathy spectrum disorder, significant medical considerations that could impact hearing aid wear time

Procedures:

- Datalogging records obtained from hearing aid software of each child at a follow-up visit and compared between groups

Datalogging records indicate that children from non-English-speaking families demonstrate significantly poorer daily hearing aid wear time compared to children from English-speaking families.

RESULTS & CONCLUSION

Children from families with limited English proficiency exhibited significantly shorter daily hearing aid wear time (mean = 1.3 hours) than their peers whose families were English-proficient speakers, thus having a shared language with their audiologist (mean = 5.2 hours).

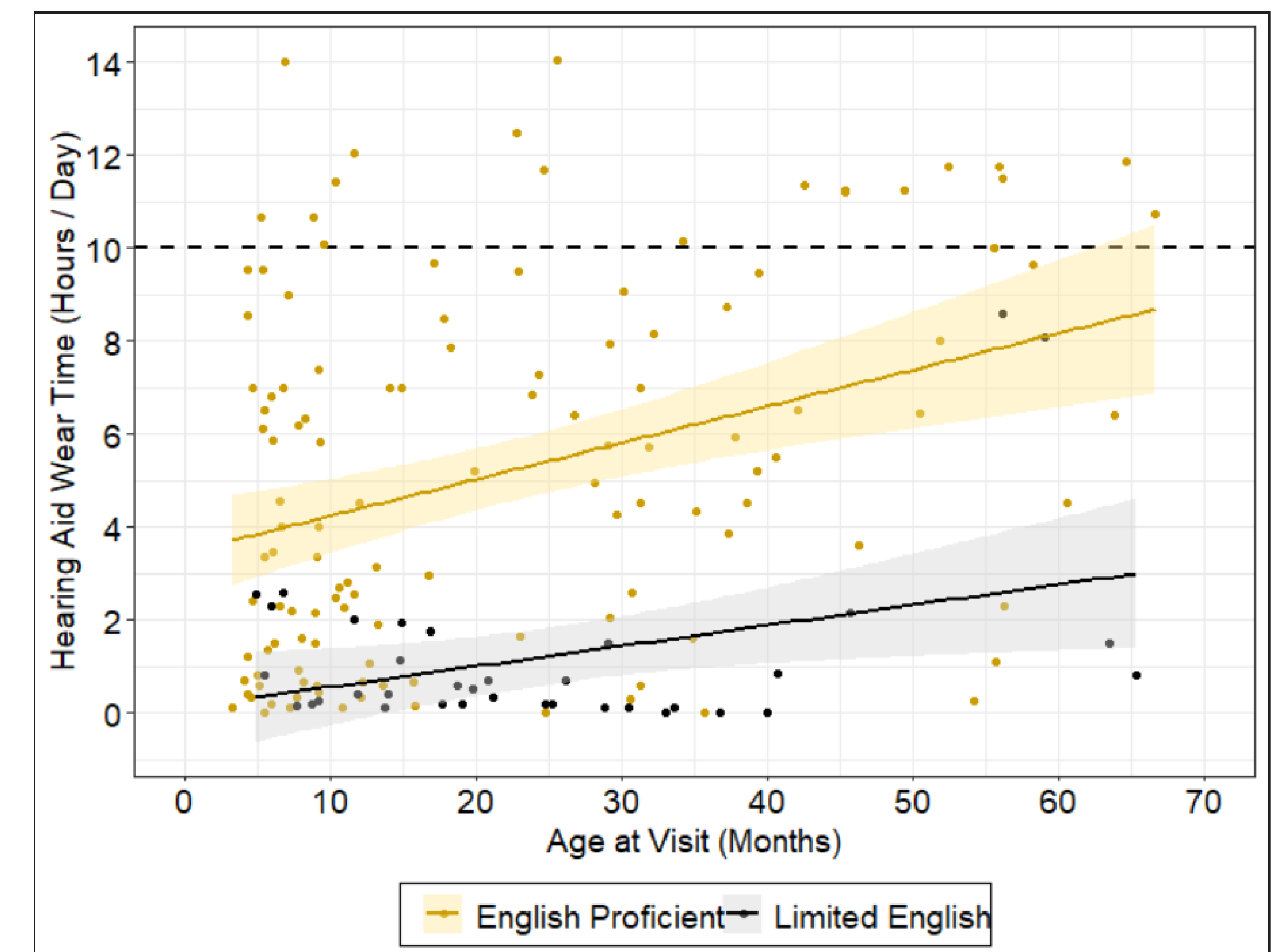


Figure 1. Daily hearing aid wear time as a function of age at the time of the follow-up visit for both groups. The dashed horizontal line indicates a 10 hour per day wear time, which is suggested in the literature to be related to favorable language outcomes. Analyses revealed statistically significant main effects of Group ($F[1,90.3] = 26.41, p < .0001$) and Age ($F[1, 109.2] = 10.80, p < .01$).

Efforts should be made to ensure hearing aid-related information is accessible to all families, especially those with clinician-family language discordance. Example strategies for improving information accessibility include allowing for longer appointment times and ensuring written brochures are appropriately translated.

KEY REFERENCES

²Census Bureau. (2020). 2012-2016 American Community Survey 5-year estimates. Retrieved November 2022 from www.census.gov/programs-surveys/acs/

³American Speech-Language-Hearing Association. (2021). Profile of ASHA members and affiliates, year-end 2020. Retrieved November 2022 from <https://www.asha.org/research/memberdata/>