

Psychosocial Factors Associated with Hearing Aid Use and Satisfaction in Adults with Age-Related Hearing Loss

A Cross-Sectional Study

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Theoretical Background

Age-related hearing loss (ARHL) is a highly prevalent global health problem, affecting ~65% of adults older than 60 years and associated with reduced quality of life (QoL) [4, 17].

Hearing aids (HAs)...

- are the standard intervention for ARHL [2].
 - are effective in improving QoL, but only if they are adopted and consistently used [11].
- ➔ HA uptake and use remain suboptimal [15], indicating influences beyond audiological need.

Psychosocial factors...

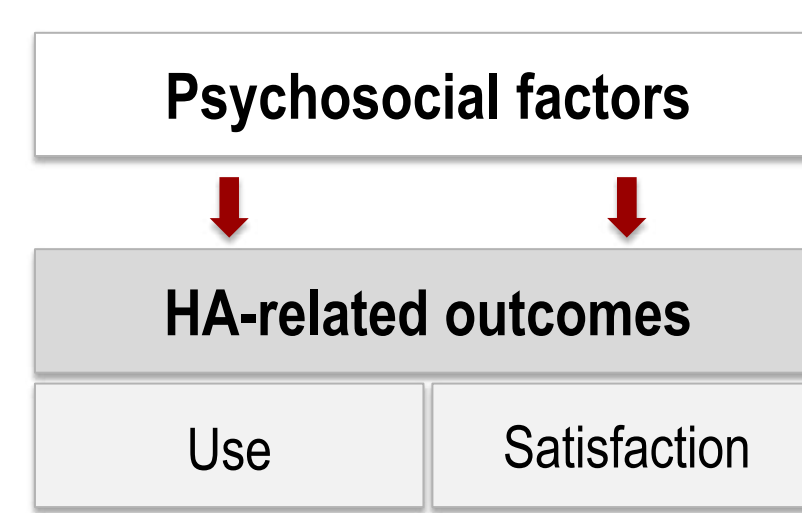
- refer to psychological and social influences on an individual's health, well-being, and functioning [16, 18].
 - are modifiable and have been shown to influence health behavior and healthcare utilization [1, 3, 8].
 - Examples include (hearing-related) adaptive strategies (AStra), social integration, views on aging (VoA), stigma (HA/HL), and stress.
- ➔ Psychosocial factors may play a role for consistent use and satisfaction with hearing aids.

Research Question

Are psychosocial factors associated with hearing aid-related outcomes in adults with ARHL?

Hearing aid-related outcomes (operationalization):

- **HA use:** Index based on self-reported frequency of use (days/week) & average daily use (hours/day)
- **HA satisfaction:** IOI-HA (Cox & Alexander, 2002) [6]



Methods

Study design: Cross-sectional online survey of adults aged 40 years and older with varying degrees of ARHL.

Operationalization of psychosocial variables:

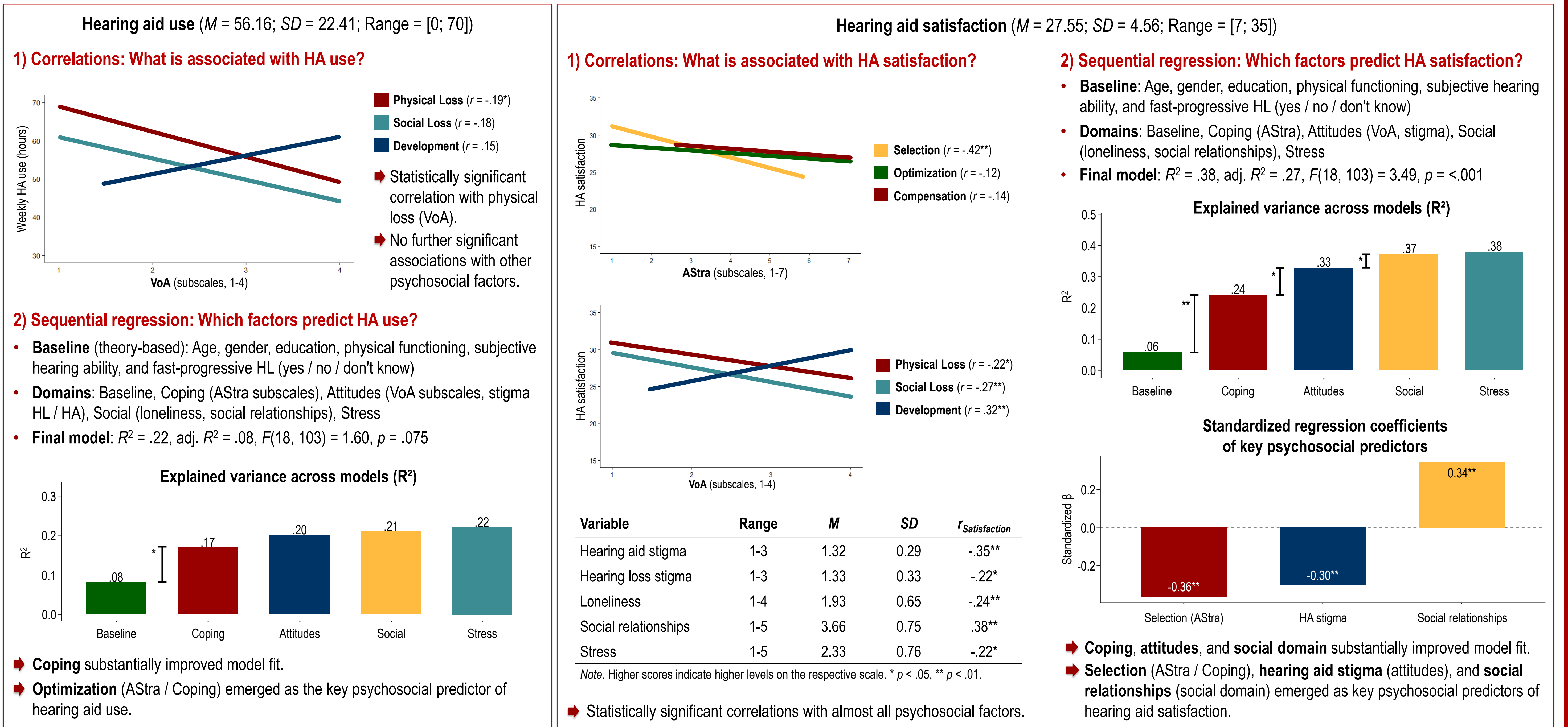
- **Hearing-related adaptive strategies (AStra;** Fischer et al., 2024): Subscales selection, optimization, and compensation [9]
- **Views on aging (AgeCog;** Steverink et al., 2001): Subscales social loss, physical loss, and ongoing personal development [13]
- **Stigma towards hearing aids / hearing loss (HARQ;** Hallam & Brooks, 1996): Subscales hearing aid stigma and hearing loss stigma [10]
- **Loneliness (6-item LONE;** De Jong Gierveld & Van Tilburg, 2006) [7]
- **Social relationships (WHOQOL-Bref;** The WHOQOL Group, 1998) [14]
- **Stress (German version of the PSS-4 based on Klein et al., 2016) [5, 12]**

Sample characteristics: N = 122

Exclusion criteria: no subjective hearing loss, cochlear implants

- **Age** (year of birth): $M = 63.86$, $SD = 8.89$, Range = [41.5; 88.5]
- **Gender:** 52.46% female
- **Education (ISCED-2011; 1-6):** $M = 3.93$, $SD = 1.24$
- **Subjective hearing ability (1-4):** $M = 2.57$, $SD = 0.59$

Results



Discussion & Outlook

- **Summary:** Different psychosocial factors are associated with different hearing aid outcomes.
 - **Hearing aid use:** Optimization (AStra) was positively associated with hearing aid use, while other psychosocial factors did not show independent effects in the final model.
 - **Hearing aid satisfaction:** Selection strategies (AStra) and hearing aid stigma were negatively associated, while better social relationships (i.e., higher perceived quality) were positively associated with hearing aid satisfaction in the final model.
 - **Overall:** The use of hearing-related adaptive strategies appears to be consistently related to different hearing aid outcomes.
- **Limitations:**
 - A ceiling effect (predominantly high-intensity users) limited variability in the hearing aid use model.
 - Model complexity and the number of predictors may have led to slight overfitting, particularly in the hearing aid use analyses.
- **Implications:** Findings highlight the importance of psychosocial factors in hearing healthcare and may support their integration into clinical practice to enhance care quality.

Literature



Conflict of Interest Statement

Dr. Rosa-Linde Fischer is an employee of ORCA Labs Europe, Scientific Institute of WS Audiology, a research institute focusing on audiology and hearing healthcare. Dr. Julia K. Wolff is an employee of the IGES Institute, an independent research and consulting firm dedicated to healthcare and health system development. However, this research was conducted independently and received neither funding nor influence from the Scientific Institute of WS Audiology or the IGES Institute. The authors declare no competing interests in connection with the research presented in this poster.