

Framing Hearing Aid Satisfaction: A Qualitative Analysis of User Experiences over Time

→ INTRODUCTION

- Satisfaction with hearing aids (HAs) is not a static moment or score; it is a dynamic, evolving experience.
- As HA users transition from their initial fitting to daily use, their satisfaction is influenced by their expectations, actual experiences, and how they adapt over time.
- This study aimed to explore this complexity by analyzing qualitative reports on HA satisfaction from both new and experienced HA users.

→ METHODS

- **Participants:** 78 HA users (58 new, 20 experienced)
- **Data:** 623 open-ended responses from new users (collected at 2 weeks and 6 months post-fitting) and experienced users reflecting on their own hearing aids
- **Questions*:** Can you, in very few words, elaborate on what guided your: 1. overall hearing aid satisfaction rating? and 2. satisfaction with sound quality rating?
- **Comparison:** Across questions, time points (week 2 vs. month 6 for new users), and user groups (new vs. experienced)

→ ANALYSIS

We applied both theory-driven and inductive approaches:

- **Expectation Confirmation Theory (ECT):** Satisfaction arises when experiences meet or exceed expectations.
- **Expectation Confirmation Model (ECM):** Adds focus on perceived performance and intention to continue use.
- In parallel, we used **thematic coding** to capture emerging patterns and user-defined dimensions beyond the theoretical models

INSIGHT: ROLE OF EXPECTATIONS (ECT/ECM)

User satisfaction is shaped by how real-world hearing aid experiences compare to prior expectations. It revolves around the extent to which hearing aids fulfill core expectations (hearing better) and offer added value (quality of life) versus persistent, detracting problems (technical issues, discomfort).

Initial Expectations
Although few quotes directly reflect pre-use beliefs, many described their experiences in relation to what they had anticipated. This highlights how early assumptions can influence subsequent satisfaction.

- “Sounds more natural than I could have imagined.”

Expectations vs. Reality
Users often evaluate satisfaction by comparing their expectations with real-world experience, revealing cases of fulfillment, mismatch, or mixed outcomes.

- “The devices do not work optimally, but I am lost without”

Positive Disconfirmation
Some users report that hearing aids exceeded expectations - unlocking richer sounds, improving life quality, and restoring lost experiences. This surprise fosters deep satisfaction.

- “I have gone from missing, or mishearing to being able to hear it all.”

Negative Disconfirmation
When HA performance falls short, dissatisfaction emerges driven by persistent technical flaws, disruptive feedback, or unmet communication needs in noisy or socially demanding environments.

- “I don't notice the difference if I'm wearing them or not.”

INSIGHT: ACROSS QUESTIONS & OVER TIME

How satisfaction is expressed varies by question phrasing and user experience stage, shifting from emotional first impressions to pragmatic reflections over time.

By Question Phrasing:
“..reason for overall HA satisfaction rating...” prompted more emotional, contextual reflections. “..reason for HA sound quality rating...” led to more technical, sound-focused responses.

Over Time:
Experienced users gave brief, practical appraisals focused on utility or minor issues. New users at 2-week *assessment* described initial reactions; often surprise, discomfort, or loudness. New users at 6-month *assessment* reported adapting with appraisals resembling those of experienced users.

INSIGHT: 5-DIMENSIONAL HEARING AID SATISFACTION CONCEPT

Satisfaction is not a single outcome – it is a complex, multifaceted experience. It evolves over time, shaped by what users value, what they need, and what they encounter along their journey

Our analysis identified five interwoven dimensions of HA satisfaction **1) Functional:** How well hearing aids restore basic hearing and clarity. **2) Social:** Support in real-world settings like conversations, work, and gatherings. **3) Emotional:** Users’ feelings, from gratitude and relief to irritation or disappointment. **4) Technical:** Performance, reliability, usability, and sound quality. **5) Adaptational:** The influence of follow-up care, guidance, and the process of getting used to the HA. Together, these dimensions reflect the complex, evolving nature of HA satisfaction.



→ CONCLUSIONS

- User satisfaction emerges through the interplay of expectations and real-world experience -> important to set realistic expectations during the initial consultation and fitting.
- Satisfaction is a multidimensional construct - > focusing solely on technical performance (e.g., sound quality) is insufficient. We need holistic assessment tools that capture emotional and social aspects and provide support in all five dimensions.
- Satisfaction is a dynamic process. New users undergo a transition period where their needs and perceptions change. Their language and focus evolve to resemble experienced users over time -> we need to provide adaptive support, with regular check-ins, that evolves with the user’s journey. Early-stage support might focus more on emotional reassurance and basic functionality, while later stages can address more nuanced or situational challenges.

* This study was a part of a larger study where participants were asked to rate their overall hearing aid satisfaction and satisfaction with sound quality on a scale from 1-10. After each rating, they were asked to elaborate on what guided their satisfaction rating. These qualitative responses are analyzed as part of this study.