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Consumer Choices and Issues

Cognition, Audition, and Amplification in 2025 and beyond

Presenters:

Dr. Douglas L. Beck, CCC-A, F-AAA
Host, Hearing Matters Podcast

Blaise M. Delfino, M.S. – HIS
Founder and Host, Hearing Matters Podcast

Learner Outcomes

- After this course, participants will be able to describe the difference between hearing and listening and associated diagnoses/disorders in the changing environment.
- After this course, participants will be able to discuss patient choices and perceptions when it comes to hearing.
- After this course, participants will be able to discuss the benefits of custom products.

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Risks/Benefits

- The applicability and accuracy of the course content may vary by the clinical, geographical, and cultural context; you should evaluate the course accordingly.
- As healthcare is rapidly evolving, new findings may change the validity of the information presented in this course. Providers should always consult the latest research and guidelines from professional associations.
- The interventions discussed in this course may be limited in generalizability, requiring practitioners to consider specific individual and population factors.
- The course may not cover all possible risk factors, diagnostic methods, or treatment options, and complex cases may require additional considerations.
- Healthcare providers should apply cultural competence and sensitivity to ensure effective and respectful care based on their patients' diverse needs.
- Providers should always evaluate the limitations of diagnostic and screening tools, considering their potential for false results as well as any ethical implications.
- It is the responsibility of course participants to critically evaluate the evidence from multiple sources to guide professional practice.

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Consumer Choices and Issues

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Hearing Loss

- 22% of the USA population has hearing loss
- 1 in 5 people.
- Most cases of hearing loss were mild.
- 10% of individuals with mild to profound hearing loss use hearing aids.

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U.S. Population Data on Hearing Loss

- Adults ranging in age from 20 to 80-plus years. Complete audiograms 8,795.
- Overall, across all U.S. adults 20 to 80+ years of age with hearing difficulties, measure either audiometrically or by self report, about 80-85% have unmet HHC needs (pg. 10).
- The overall uptake of hearing aids among U.S. adults 20 to 80-plus years of age, regardless of hearing status, was about 5% and uptake increased steadily.

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Hearing vs. Listening

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Listening Disorders without Hearing Loss

- Supra-Threshold Listening Disorders
- Sub-Clinical Hearing Loss
- Functional Hearing Loss
- Central/APD/other…

Hearing vs. Listening

- **Hearing (40 million)**
  - Perceiving sound
  - Detecting sound
- **Listening (26-30 million)**
  - Comprehending
  - Applying meaning

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Possible Etiologies

- Auditory Neuropathy Spectrum Disorder
- Cochlear Synaptopathy
- Hidden Hearing Loss
- Auditory Processing Disorder
- Neurocognitive Disorder
- Alzheimer's Disease
- Attention Deficit Hyperactivity Disorder
- Meniere's Disease
- Dyslexia

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Possible Etiologies

- Attention Deficit Disorder
- Traumatic Brain Injury
- Specific Language Disorder
- Blast Exposure
- Dementia
- Extended High Frequency SNHL
- Asymmetric Hi Freq SNHL
- More….

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Listening is Where Hearing Meets Brain

Hearing Science

Listening Is Where Hearing Meets Brain...in Children and Adults

Research continues to find close links for cognition and hearing

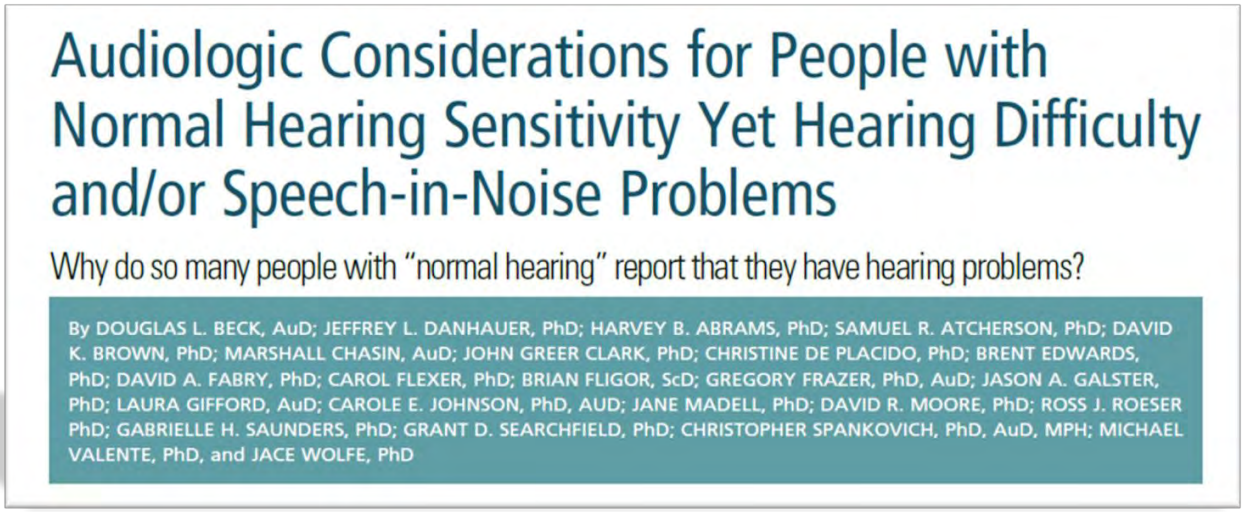
BY DOUGLAS L. BECK, AuD, AND CAROL FLEXER, PhD

Hearing is a sense; listening is a skill. Listening can be thought of as applying meaning to sound: allowing the brain to organize, establish vocabulary, develop

Dogs have extraordinary hearing. The literature varies on the actual spectral response of canine hearing across breeds, but in general, it appears to be from about 50 Hz to 40,000 Hz. In practical terms, dogs hear roughly one octave more than humans—thus allowing dogs to hear annoying dog whistles, which most of us prefer not to hear anyway. However, despite their thoughts, and more. Indeed, *listening* can be thought of as applying meaning to sound, allowing the brain to organize, establish vocabulary, develop receptive and expressive language, learn, internalize, and indeed ... *listening is where hearing meets brain*. Extraordinary listening (much like language) is uniquely human.

Hearing Is a Sense, Listening Is a Skill

Normal Hearing and SPiN Problems



Audiologic Considerations for People with Normal Hearing Sensitivity Yet Hearing Difficulty and/or Speech-in-Noise Problems

Why do so many people with "normal hearing" report that they have hearing problems?

By DOUGLAS L. BECK, AuD; JEFFREY L. DANHAUER, PhD; HARVEY B. ABRAMS, PhD; SAMUEL R. ATCHERSON, PhD; DAVID K. BROWN, PhD; MARSHALL CHASIN, AuD; JOHN GREER CLARK, PhD; CHRISTINE DE PLACIDO, PhD; BRENT EDWARDS, PhD; DAVID A. FABRY, PhD; CAROL FLEXER, PhD; BRIAN FLIGOR, ScD; GREGORY FRAZER, PhD, AuD; JASON A. GALSTER, PhD; LAURA GIFFORD, AuD; CAROLE E. JOHNSON, PhD, AUD; JANE MADELL, PhD; DAVID R. MOORE, PhD; ROSS J. ROESER PhD; GABRIELLE H. SAUNDERS, PhD; GRANT D. SEARCHFIELD, PhD; CHRISTOPHER SPANKOVICH, PhD, AuD, MPH; MICHAEL VALENTE, PhD, and JACE WOLFE, PhD

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Amplification for Adults with SPiN Problems and Normal Thresholds

MedCrave
Step into the World of Research

Journal of Otolaryngology-ENT Research

Mini Review

Open Access

CrossMark

Amplification for adults with hearing difficulty, speech in noise problems - and normal thresholds

Keywords: amplification, adults, hearing difficulty, speech, normal thresholds, signal-to-noise ratios

Introduction

Most physicians and audiologists know that hearing difficulty (HD) and/or the inability to understand speech-in-noise (SIN) are chief complaints for some 38 million people with sensorineural hearing loss (SNHL) in the United States. These are neither trivial nor rare complaints. Rather, they represent a nearly universal descriptor

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The Synchrony Hearing Health & Loss Prevention Study

Source: Synchrony Hearing Health & Loss Prevention Study, May 2024.

CareCredit Hearing Research (2024)

	Consumers	Audiologists
Qualification Requirements	Adults ages 18-55	In practice 2-40 years, 50%+ of time in clinical practice, and see 50+ patients a month about hearing
Sample Size	n=2,001	n=26
Recruitment	Via online survey panels	Invited via email, sourced through purchased list
Survey Method Survey & Length	Online Survey Average 12 minutes	Online Survey Average 20 minutes
Field Period	February 12 – 23, 2024	February 12 – 23, 2024

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CareCredit Research: Executive Summary

- Hearing concerns voiced by some consumers, underpinned by need for increased prevention education.
- Hearing health is viewed as a priority, yet consumer actions may not back this up.
- Rx hearing device use is common,* with the cost of the device a clear pain point.
- Despite apparent stigmas, views toward hearing devices are largely positive.

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*Among those who have and use a hearing device.

CareCredit Research: Generational Study

- Many young adults embrace the importance of hearing care, backed by audiologists.
- Young adults lead in hearing knowledge but may view as a “later” problem.
- Younger adults show resistance day-to-day hearing preservation, something audiologists fear.
- Older consumers may be more comfortable raising their hearing concerns to a specialist.

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CareCredit Research: Highlights

- Hearing journey explorers prioritize their hearing, often taking a preventative approach.
- Hearing concerns surge among this cohort.
- This group demonstrates greater understanding across the hearing care spectrum.
- Communications with specialists are common, but hearing journey explorers still cite hesitancy.

CareCredit Research Conclusions

- 70% of consumers consider their hearing a priority, yet less than half consider regular checks important, and only 10% received a hearing test in the past year.
- People under 55 years of age exhibit a general (and incorrect) assumption that hearing loss does not affect them.
- A large proportion of people demonstrate a clear stigma against the use of hearing devices and are hesitant to purchase or use them.

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OTC Affordability and Accessibility

- Two years after the FDA allowed OTC, we observed that “access” appears to have been increased. However, the better OTC products often cost $1,000 to $2,950 per pair, placing the better OTCs beyond the reach of most of the people OTC was created to help.
- Sieber reports that at BestBuy, OTC products range (per pair) from $200 to $2,550.
- Suzy Orman *(personal finance expert)* reports that most Americans (60%) do not have $500 for an emergency (13). As such, it seems hard to imagine that most Americans could spend more than $500 on a pair of low to mid-range OTC hearing aids.

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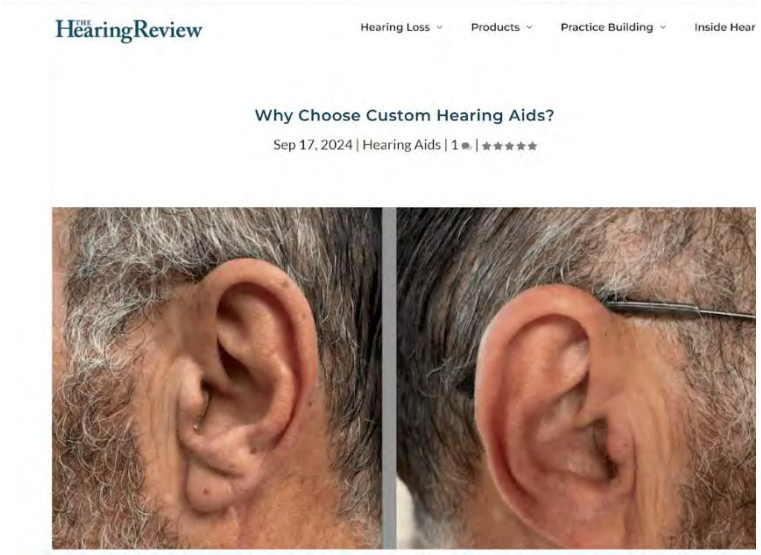
Why Choose Custom Hearing Aids?



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Hearing Aid Stigma

The Hearing Review

Hearing Loss | Products | Practice Building | Insid

Hearing Aid Stigma

There is ample evidence of stigma associated with both old age and hearing aids in our culture from long ago through to 2024.

Capitalizing on the quest to look younger, companies present a plethora of billboards for "age-defying" skin treatments and late-night ads for local plastic surgeons jabber on and on about wrinkles like they were generals describing hostile enemy forces, reports Levy.(4)

Amlani(5) reports that even if hearing aids were given away free, two-thirds of the hearing-impaired population would not bother to acquire hearing aids.

Wallhagen(6) reports pervasive perceived stigma associated with hearing loss and hearing aids and the close association with ageism and perceptions of disability. She notes young adults report the negative impact of hearing loss and hearing aids on their relationship with peers, self-concept, and willingness to self-disclose.

People with hearing loss avoid hearing aids for many reasons and "social stigma" plays a significant role, according to a 2024 Forbes survey.(7) In the survey they report 48% of respondents believe there is a stigma associated with hearing aids. They report 63% of Millennials, 47% of Gen Xers, and 41% of Boomers agree, there is a stigma.

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Stigma Continued

WebMD(8) says essentially the same thing: 62% of Americans wear visible corrective eyewear and 45 million wear contact lenses. Yet, only 15% of people with hearing loss wear hearing aids. They report resistance to hearing aids is deeply rooted in stigma, specifically with old age.

Beadle, Jenstad, et al(9) report younger and older adults might hold negative implicit attitudes toward older and younger people who wear hearing aids.

A study by Nickbakht, Ekberg, Waite, et al(10) explored how and when a stigma-induced identity threat is experienced by adults with hearing loss and their family members. They report all participants in their study believed hearing loss and hearing aids were associated with stigma. They also report an association between hearing loss and hearing aids and stereotypes associated with aging, disability, and difference; and more.

Rather than denying the persistence of the hearing aid stigma, we, the authors, are admitting it and we are trying to accommodate and facilitate a more-willful desire to acquire and wear hearing aids and to increase patient adherence, if clinically appropriate. Certainly, custom-made products are not appropriate for all situations.

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Stigma Continued

However, the FDA could have done a much better job by simply recommending or mandating (their choice) a comprehensive audiometric evaluation by a licensed hearing healthcare professional to facilitate a diagnosis and to offer education, guidance, and counseling, and then allow the patient to make up their own mind about what to buy and where and how to buy it. Some might opt for OTC, perhaps others would select prescription products. Either would be fine. It would be a personal choice as to what to buy and where to buy it. We will never know how well OTC might have gone had FDA required the time-honored medical protocol of "diagnosis first, treatment second."

That ship has sailed.

As professionals, we can continue to promote highly visible hearing aids that people typically do not want to wear or, moving forward, we can revive a previously successful patient-centric perspective.

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Benefits of Custom Hearing Aids

- In my case (DLB), despite ridiculously small ear canals and despite an unusual sensorineural hearing loss, I would not choose visible BTEs or mini-RITES for me.
- I have chosen Starkey Genesis custom-fit IICs. I choose to keep my hearing and listening issues essentially out of sight.
- We believe most people with mild-to-moderate hearing loss would make a similar decision if given the choice, and if that option is clinically appropriate.
- For some people, wearing custom-made IICs (and other custom-made nearly invisible products) removes the hearing aid stigma from the equation, thereby allowing a more palatable choice for the patient.

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Considerations

As hearing healthcare professionals, we need to be cognizant of the personal and very important choices people make. The perceived stigma and cosmetic disadvantages associated with visible hearing aids are real for many people. These perceptions are important and need to be anticipated, acknowledged, and managed. Further, prescription and OTC products with tulip dome fittings are rarely the best acoustic solution for anyone, although they are admittedly sometimes preferred by patients and consumers as they are easy to fit and offer little (if any) occlusion.

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Considerations

For most people with mild-to-moderate hearing loss, tiny, almost invisible, hardly visible, custom-made, deep insertion hearing aids and earmolds (not off-the-shelf generic premium RITE products with domes…) are worthy of re-consideration. For those with more significant thresholds such as 65-90 dB, more powerful RICS and RITES with custom deep-fitting earmolds are often the better choice.

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Considerations

Sure, we can keep telling patients their hearing loss is more visible than their hearing aids. But then, we should also admit that only 10% of people with hearing loss in the USA acquire hearing aids.(3) As Albert Einstein reportedly said, “The definition of insanity is doing the same thing over and over and expecting a different result.”

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Thank you!

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