Hearing Screenings: An Incomplete Peek at a Complex Problem

The future of audiology requires best practices and comprehensive audiometric assessments to address growing hearing needs.

BY DOUGLAS L. BECK

Science is dynamic and continues to evolve. Rules change over time. Ideas, theories, and understandings held true today may not be true tomorrow. As professionals, our charge is to consider and incorporate new knowledge to further our understanding of science and take better care of people.

The Global Burden of Disease study reported 73 million Americans had hearing loss in 2019—most of it mild-to-moderate hearing loss (see sources). Another 2019 study reported 26 million Americans had subclinical listening problems (hearing difficulty or speech-in-noise problems) despite normal hearing thresholds (see sources). Therefore, almost one in three Americans have hearing/listening problems. Much of that hearing loss is not addressed: Some 85% of those with mild-to-moderate hearing loss have unmet hearing health needs, found a study led by Larry Humes and published in Trends in Hearing in 2023 (**bit.ly/humes-trends**).

Perhaps 5% of hearing problems have medical/surgical etiologies, and 95% of hearing problems are audiologic—due to presbycusis, age-related hearing loss, noise-induced hearing loss, ototoxic etiologies, and more. All hearing and listening problems benefit from comprehensive audiometric assessment (CAA), diagnosis, and treatment, which typically involve counseling, aural rehabilitation, and amplification.

Individual hearing health is complex

Audiology does (and should) consider the whole person, not just their hearing loss, and we should focus on individuals, not groups (see sources). Many factors overlap, masquerade, and impact audiometric evaluations, including psychological well-being, depression, anxiety, cognitive ability, auditory processing, central hearing loss, subclinical hearing loss, auditory neuropathy, cochlear synaptopathy, communication and listening problems, speech-in-noise ability, and more—the majority of

which are not recognized, assessed, diagnosed, treated or referred via hearing screenings.

The influence of these factors on hearing and listening (and vice versa) is reflected in ASHA's Practice Portal page on Adult Hearing Loss (**on.asha.org/hl-adults**, see the "Assessment" section). Yet few audiologists incorporate best practices. Regarding compliance with real ear measures and speech-in-noise assessments, estimates indicate one in five audiologists comply with best practice/scope of practice.

Despite folk wisdom and myth, there is no hearing loss that is "normal for your age." Hearing loss is common as we age; it is not normal. Hearing loss is neurodegenerative, and the sequalae vary from minimal to devastating.

Audiologists should employ CAA with each patient. We simply do not know what we do not test. Typical epidemiologically recognizable pure tone patterns do not represent individual patients. They represent groups. Hearing screenings are not the best use of time and resources (apart from newborn/infant hearing screenings, which I absolutely endorse).

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Certainly, others will argue in favor of hearing screenings. I disagree.

Assessment over screening

My perspective is "hearing screenings" are of little benefit, as most people who fail screenings do not follow up (see sources). Audiologists cannot diagnose or treat based on a hearing screening. Despite passing a hearing screening, significant questions remain regarding word recognition in quiet; speech-in-noise ability; and more. Hearing screenings do not explore the primary reason most people seek audiologic care—the inability to understand speech in noise—and hearing screenings do not motivate people to independently explore their audiologic abilities and options.

I have no issue with non-audiologists (including teachers, school nurses, speech-language

pathologists, med-techs) offering hearing screenings. However, when an audiologist offers less than a CAA, that minimizes the audiologist's expertise and knowledge and dismisses the opportunity for the audiologist to diagnose and treat.

A 2011 report in Hearing Review showed that of 2,049 individuals screened, 1,337 failed (65%). CAAs were recommended for 886 individuals; 16% scheduled appointments (see sources).

Additionally, the International Journal of Audiology in 2017 reported that 60% of adults who failed online hearing screenings did not follow up with a hearing care professional (**bit.ly/no-followup**). In 2013, researchers from European University Cyprus reported that screening of 3,025 adults netted a referral rate of 46%—yet only 18% tried amplification.

It seems clear that hearing screenings do not reflect functional auditory ability, and hearing screenings are not valued by recipients.

Audiologists should always address best practices/scope of practice, and patient complaints (with or without elevated thresholds) are enough to motivate exploration, diagnosis, and treatment. Although we cannot objectively quantify lower back pain, migraines, dizziness, tinnitus, and more, professionals diagnose and treat these conditions. Hearing and listening problems are similar in that "subclinical" hearing loss (inclusive of suprathreshold, central and auditory processing disorders) indicates the problem is not apparent or quantified on the standard clinical tests but is present per the patient.

Subclinical hearing loss is common. A 2019 report indicated 26 million Americans have hearing difficulty and/or speech-in-noise problems, despite normal hearing thresholds (see sources). Additionally, a 2023 study from the Veterans Affairs Portland Health Care System reported "functional hearing difficulties" in 23 million Americans, which were not apparent or explained by thresholds.

Hearing screenings do not explore the primary reason most people seek audiologic care—the inability to understand speech in noise—and hearing screenings do not motivate people to independently explore their audiologic abilities and options.

When patients and consumers tell us they have difficulty understanding speech in noise and/or people mumble despite "normal" audiograms, we should diagnose via CAA and as/if needed, consider treatment via directional and beam-forming amplification, remote mics, FM systems, minimal-gain hearing aids, and over-the-counter options for those who seek that route (see sources).

The "tipping point" is behind us. It already happened. Medical technology and consumer technology overlap. Each offers benefits for the right person at the right time. Consumer electronics offer alternatives not previously available and at lower prices than comparable medical technology, making them attractive alternative solutions.

Audiology in the next century

Audiology needs to evolve such that audiologists are recognized as physicians. Audiologist physicians and their patients would also benefit from audiologists having prescription authority, as is the case with medical doctors, nurse practitioners, physician assistants, optometrists, dentists, podiatrists, veterinarians, and others. Yes, antibiotics have been overprescribed, and antibiotic resistance is a huge problem. But who is responsible for overprescribing antibiotics? Certainly not audiologists.

As already allowed in Maryland, audiologists should be able to order radiographic imaging.

Audiologists are independently licensed health care practitioners with eight years of education culminating in a doctoral degree. Audiologists are not technicians and are not secondary to otolaryngology, although we often work collaboratively with otolaryngologists.

In a review of 1,550 Medicare-eligible patients at the audiology section of the Mayo Clinic in Florida, 95% ultimately required audiological services as the only hearing services needed. The study also found that audiologist treatment plans did not substantially differ from otolaryngologist plans, and there was no substantial evidence that audiologists missed significant symptoms of otologic disease (see sources).

The first Centennial of audiology and ASHA has been glorious, and we're just getting started. The next 100 years will be more challenging and more beneficial to patients, consumers, and audiologists as we accept, embrace, and benefit from the professional realizations and responsibilities noted above.

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