

Research May Be the Key to Change

Patient-provider communication is a cornerstone of patient-centered care that is respectful of an individual's values, expectations and needs. Research suggests communication is related to improved health outcomes and better treatment adherence. It may seem obvious that hearing would play a fundamental role in patient-provider communication. Most studies regarding the topic have left hearing loss out of the research picture entirely. This exclusion has far-reaching implications.

Research often guides policy. The failure to be inclusive regarding hearing loss means health care providers, administrators and policymakers tend to ignore it. It is not that these individuals do not care; rather, they are unaware of the magnitude of the issue and potential implications. While this is not to excuse the health care system, insufficient awareness of hearing loss has often forced individuals with hearing loss to advocate for themselves. Sometimes those individuals make wonderful, lasting change in a system, but change is often fleeting without strong top-down buy-in, which often comes from large-scale, high-quality research. It is this author's opinion that no individual should bear this burden alone, and it is not the responsibility of the individual to self-advocate for accommodations. Rather, accommodations are the responsibility of health care systems, which must be designed with adaptability and pre-emptive accessibility in mind.

The Impact of Hearing Loss on Health Care Outcomes and Patient Satisfaction

Nonetheless, there is room for optimism. Recent research has begun to clarify the impact of hearing loss on health care outcomes among adults, as well as characterize the experiences of those with hearing loss in health care settings. The body of literature suggests that people with hearing loss incur higher health care costs, experience higher rates of health care utilization and are less satisfied with care than their peers without hearing loss. In one large analysis of administrative claims data over a 10-year period, persons with hearing loss incurred, on average, \$22,434 more in health care spending and experienced higher health care utilization relative to adults without hearing loss. The data also revealed a 44% higher risk of experiencing a 30-day hospital readmission, which is widely considered a marker of poor health care services and/or treatment adherence.

Recently, studies have shifted to important patient-centered outcomes, including satisfaction with care. This reflects whether the health care system met an individual's

health needs, expectations and ability to access and engage with the system. One analysis of Medicare beneficiaries suggests adults who report trouble with hearing had between 50% and 77% higher likelihood of reporting dissatisfaction with the quality of their health care. Decreased satisfaction has important implications for future health care-seeking behaviors. It is plausible that adults with hearing loss who are dissatisfied with their care may not seek care in the future. Avoiding care can lead to an avoidance of preventive health measures, which creates higher risk for emergency department and hospital admission.

These eye-popping numbers have the potential to grab the attention of decision makers, especially when put in the context that there are at least 48 million Americans with hearing loss and that number is projected to reach 74 million over the next 40 years. Back-of-the-napkin (completely unofficial) math using data from previous studies suggests that Americans with hearing loss could incur \$852 billion more in health care spending over a 10-year period—and that is staggering.

Satisfaction, in particular, is an extremely valuable metric for hospital leadership. The Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) is a satisfaction survey sent to Medicare beneficiaries following a hospital stay. The scores from the HCAHPS are used to rank hospitals within their region, and those rankings are then used to organize hospitals into reimbursement rate tiers. Better scores from satisfaction surveys equate to higher reimbursement for the hospital. Therefore, it is not a stretch to believe addressing hearing loss could be profitable for hospitals.

Future Research for Systemic Solutions

However, there is still work to be done. A common fallacy occurs with interpretation of research by the public: it is often assumed that just because there is a clear association (i.e., hearing loss and health care spending), addressing it with conventional methods will negate the association (i.e., hearing aid use will negate excess health care spending). Questions remain about whether these associations between hearing loss and health care utilization and satisfaction are truly modifiable. We need to know if hearing aid use prevents poorer health care outcomes, and we must assess whether addressing hearing loss in health care settings can improve outcomes. It is plausible and even likely that improving communication would improve outcomes, but it has not been rigorously assessed.

We need strong randomized control trials, the gold standard of research, to answer the question. There are examples of such large trials ongoing at the moment in the U.S., including the Aging and Cognitive Health Evaluation in Elders (ACHIEVE) trial at Johns Hopkins that aims to quantify the effect of best-practice hearing care on important healthy aging outcomes, including cognitive decline, physical function, social engagement and health care utilization.

Likewise, research is underway across multiple institutions to address hearing loss in the hospital setting. Researchers have taken multiple approaches to the issue, but they often revolve around communication training for hospital staff and providers, combined with providing speech-to-text transcription services, handheld amplifiers and ASL interpreters for those who need them. An important caveat and area of need in this work is more consideration of the sustainability of such programs using implementation science. Quality initiatives in health care often suffer from a knight-in-shining-armor syndrome, whereby researchers throw a lot of money and attention at an area but then the initiative is abandoned when the researchers move on. Moreover, the programs often attempt to reduce everything to a one-size-fits-all style, which is unrealistic because of the extraordinarily complex nature of individual patients.

There is a clear injustice regarding hearing loss and the health care system. It will take time to prove the degree to which addressing hearing loss can modify these outcomes. We are definitively in a marathon—not a sprint. While the research plays out, we can't stop advocating at an individual level, though. It is an equity issue; each individual deserves a health care experience that meets his or her unique needs. Once we have higher quality evidence, the fight for wide-scale, systematic change will become much easier. **HL**



Nicholas Reed, Au.D., is an assistant professor in the Department of Epidemiology at Johns Hopkins Bloomberg School of Public Health with a joint appointment in the Department of Otolaryngology-Head and Neck Surgery at Johns Hopkins School of Medicine. He is core faculty at the Cochlear Center for Hearing and Public Health, where he is the director of the audiology core.

Finding the Words

BY SHARON THURSTON

When I fell off my bike and fractured my ankle in three places, I embarked on a two-year health care odyssey compounded by hearing loss. I knew the break was serious by the X-ray technicians' faces, but I was overwhelmed and couldn't take in their words.

Later, when surgery failed and my ankle did not heal correctly, grasping every word became very important. I faced crucial decisions that would impact the rest of my life. Should surgeons redo the metal plates and screws? Internet research and stories raised so many questions. If they fused my ankle, could I ever drive again? I live alone, so this really mattered. What about pain, ankle braces, normal shoes and sandy beaches? Would ankle replacement be better?

My wonderful orthopedic surgeon explained various scenarios in a complex discussion on ligaments, flexion, arthritis and syndesmosis, which is a slightly moveable fibrous joint. I learned a lot, yet even with life-changing cochlear implants, about 20% of words remain unclear. At times, he turned away toward the X-rays, which made it even more difficult to hear him. Sometimes my confusion led him to speak directly to my sister, who had accompanied me.

My sister Andrea also has hearing loss. She followed along using a speech-to-text app and sent me a transcript the next day. Amazingly, it filled in so many blanks. On the next visit, she lost the transcript and I felt bewildered again. Consequently, I learned to use speech-to-text apps myself. I felt better informed and in control. Things improved steadily. Yesterday I walked 7,500 steps in normal shoes. Life is good!

Sharon Thurston is retired from her career in library sciences, in which she worked as an IT professional. Her sister Andrea has created a website that educates and supports people with hearing loss and provides a rich storehouse of information about hearing assistive technology. Visit gatheringsound.com.



HLAA's Communication Access in Health Care Program is currently focused on the following projects:

- Providing consumer representation on
 - INTERACT Research Trial Advisory Board
 - Electronic health record work groups, including the Learning Collaborative to Address Disability Equity in Healthcare (LEADERS)
- Conducting educational presentations and discussion groups for chapters on access and patient self-advocacy (look for notices in the free bimonthly *Hearing Life eNews*; sign up at hearingloss.org/news-media/e-news/);
- Planning for HLAA Hospital Safety Webinar, October 11, 2021;
- Direct advocacy work with select hospitals and hospital systems;
- Outreach to a wide range of stakeholders to cultivate a community of professionals, administrators, researchers and consumers interested in examining and solving the problems of communication access in health care.