

hearing through the noise



Translating contemporary audiological topics into clinical practice

Hearing & Cognition

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Believing was Easy

By Bill Dickinson *VP of Audiology*

belief (noun) 1. The state of mind in which a person thinks something to be the case, with or without there being empirical evidence. For a child, belief in what cannot be seen can be magical, hence gift bearing bearded men dressed in red, egg dropping bunnies or kleptomaniac dental fairies. For audiologists, belief can be equally purposeful and powerful.

Personally, the opportunity of improving the quality of life by sound restoration, is the finest hour of being an audiologist. Like most clinicians, I was convinced long ago that by restoring audibility we are improving much more than just "quality of life." Audition is a significant component of cognition and healthy aging.

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In 2013, Johns Hopkins researcher Frank Lin, M.D., Ph.D. confirmed this connection in *JAMA Internal Medicine*. Dr. Lin and colleagues showed older adults with

hearing loss developed significant impairment in their cognitive abilities 3.2 years sooner than those with normal hearing. Finally, a longitudinal study showed hearing loss involves long term consequences to healthy brain function and it should not be considered to be an inconsequential component of aging.

More recently, a peer-reviewed paper from Amieva et al, suggested hearing aid use could help mitigate cognitive decline. While results from this study should be interpreted cautiously, it is arguably the largest and longest running research connecting hearing aid use with reduced cognitive decline.

However, while such data holds great potential for Audiology, it probably would have minimal impact on my clinical practice. You see, in the absence of data supporting the causal relationship between hearing loss and dementia, after 20+ years of treating hearing impairment, I always chose to believe it did. After fitting several thousand hearing aids, I fully appreciate the impact that a hearing aid can have upon a patient coping with untreated hearing loss. We all have witnessed how amplification combats the negative effects of hearing loss, such as

About the author



Bill Dickinson AuD joined Phonak in 2013 after nearly a decade serving as Assistant Professor at Vanderbilt. He is a strong proponent of the Audiology profession and tireless advocate for the hearing impaired. Bill is an engaging speaker nationally and internationally, respected author and established authority on audiological rehabilitation.

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loneliness, social withdrawal, early retirement or simply loving and living less — each a risk factor for cognitive decline.

While we have much to learn regarding causal effects of cognitive decline in older adults, clearly it begins with a gradual and progressive reduction in the number of properly functioning cells in the brain. In short, the brain slowly begins to die. However, if enhanced hearing can forestall these negative effects by 3.2 years, then that is something to believe in. Yes, even in the absence of direct causal evidence linking better hearing with less dementia, I choose to believe. Not everything in life must be seen, to be known... just ask a child.