Hearing Aid Use in Individuals With Dementia

Handling proficiency and positive results are among the factors that influence hearing aid use by individuals with dementia, researchers found.

Led by Emma Hooper, MSc, of the University of Cumbria in the United Kingdom, researchers conducted a systematic literature review of eight databases to locate primary research involving individuals with diagnosed dementia who had received air-conduction hearing aids for age-related hearing loss. The selected studies reported data related to hearing aid use and/or factors that influence use.

The researchers previously had participated in the SENSE-Cog project, a European study on the impact of dementia and age-related hearing and vision impairment. This included a randomized, controlled trial of a sensory intervention that was designed to support hearing and vision functioning in Europeans living with dementia. “Our interest in investigating ways in which to support hearing aid use in people with dementia arose from this, and this systematic review investigating factors that influence hearing aid use in dementia represents the starting point for this research,” Ms. Hooper told Caring.

For this study, the researchers synthesized the data from the studies by using the Theoretical Domains Framework, which consists of 14 domains that determine or help change behavior. The strongest evidence in the 12 studies included in the final analysis focused on these domains, the researchers said:

• Skills. Difficulty or proficiency with insertion, removal, adjustment, and maintenance helps determine hearing aid use.
• Reinforcement. A range of positive experiential consequences is associated with hearing aid use, although there are no studies about whether these influence hearing aid use. Also, hearing aid use is determined by how well the hearing aids fit and how comfortable they are, another form of reinforcement.
• Environatal context and resources. Excessive noise or a perceived lack of need in various listening situations leads to reduced use.
• Social influences. Prompts and encouragement make hearing aid use.

“The results suggest that a wide range of constructs may influence hearing aid use in dementia,” Ms. Hooper said. “Our findings are significant because previous reviews of factors that influence hearing aid use have not considered the distinct needs of people living with dementia.”

Individuals with dementia may benefit from learning strategies to optimize their skills in handling hearing aids and from increased social support. “Determinants of hearing aid use for people living in the community with dementia are multifaceted,” Ms. Hooper said. “They include intrinsic determinants related to skills and motivating factors, and extrinsic determinants related to the listening context and social influences. Our findings suggest that enhanced support pathways that tailor to the abilities and motivators of the individual with dementia whilst also accounting for their social support systems over time represent the best opportunity to optimize hearing aid use.”

Source: Hooper E, et al. Systematic Review of Factors Associated With Hearing Aid Use in People Living in the Community With Dementia and Age-Related Hearing Loss [published online: August 18, 2022]; J Am Med Dir Assoc. DOI: https://doi.org/10.1016/j.jamda.2022.07.011

Pressure Injuries and Stroke in Skilled Nursing Facilities

More than 1 in 10 older individuals with stroke have pressure injuries upon admission to skilled nursing facilities, a retrospective cohort study found.

Led by physical therapist Shilpa Krishnan, PhD, of Emory University’s School of Medicine in Atlanta, researchers used two years of claims data from the Centers for Medicare & Medicaid Services and Minimum Data Set 3.0 data to describe the sociodemographic characteristics, clinical comorbidities, and treatment strategies of pressure injuries among individuals aged 66 and older with stroke who were admitted to a skilled nursing facility. Among 65,330 older adults with stroke, 11% had at least one pressure injury upon admission. The highest prevalence occurred among individuals aged 85 and older. Pressure injuries also were more likely among non-Hispanic Black individuals, among individuals of lower socioeconomic status, and in overweight individuals. Compared with individuals who did not have pressure injuries, these patients also were more likely to have or had had:

• A long hospitalization and a stay in the intensive care unit.
• More comorbidities, such as concerns about skin integrity, system failure, infection, limited mobility, neurological and cognitive conditions, diabetes mellitus, or a previous stroke.

• Less individual physical and occupational therapy and more co-treatment — that is, receiving both therapies at the same time.
• Low documented turning and repositioning rates.

“Identifying residents with a higher risk of pressure injury during acute care discharge and providing early preventive care during post-acute care would possibly decrease costs and improve outcome quality,” the researchers said.


Dynamic Lighting and Fall Prevention

Dynamic lighting that can change in intensity and spectrum can help reduce the risk of falls in nursing homes, an observational study found.

Led by Leah K. Grant, PhD, of Brigham and Women’s Hospital in Boston, researchers studied two pairs of nursing homes, comprising a total of 758 residents. Solid-state lighting that increased blue light during the day and decreased it overnight was installed throughout one home from each pair. The other site in each pair retained the standard lighting with no change in intensity or spectrum.

Their retrospective review of medical records for the 12 months before the upgrade showed the rate of falls per 1,000 resident-days was similar: 6.94 in the facilities that later received the upgrade and 6.62 in those in which standard lighting remained. Twelve months after the upgrade, however, the rate was 4.82 in the facilities that received the upgrade compared with 8.44 in those that still had standard lighting — a 43% reduction.

When falls did occur in the facilities that had received the upgrade, the majority (55%) happened during the daytime despite the brighter conditions. This suggests that nonvisual factors resulting from the upgrade, such as changes in sleep and cognition, may play a role in fall reduction, the researchers said.


Jeffrey S. Eisenberg, a freelance writer in the Philadelphia area, compiled this report.