Do individuals with hearing loss change their driving habits over time?

Driving helps us carry out our everyday activities, stay socially connected, and maintain our independence and well-being as we age. However, age-related cognitive and sensory changes may negatively impact an individual's ability to drive. The best predictor of driving safety to date is the Useful Field of View Test (UFOV), which measures how quickly one can identify and locate targets (e.g., Edwards et al, 2006). Obviously, the ability to see is crucial for safe driving so that we can avoid potential hazards. However, hearing is also important for driving safety. Currently, 30 million older adults in the United States have hearing loss that may negatively impact their ability to safely drive (e.g., Ivers, Mitchell, & Cumming, 1999; Picard et al., 2008). In addition to driving safety, another aspect of driving that is important for older adults' well-being is mobility (e.g., Edwards, Lunsman, Perkins, Rebok, & Roth, 2009). Driving mobility is measured by miles driven, the extent to which an individual drives beyond their own home (also known as driving space), the avoidance of challenging driving situations, and driving cessation. As the aging population continues to grow, the importance of balancing driving safety and driving mobility remains an important public health concern.

Although previous research provides evidence linking hearing loss and compromised safe driving, do the same individuals with hearing loss change their driving mobility habits over time? To address this question, researchers at the University of South Florida conducted a recent study including 500 community-dwelling older drivers who were successfully interviewed at baseline and three years later. The drivers were categorized into normal hearing, mild hearing loss or moderate or greater hearing loss. Participants took tests measuring their UFOV and sensory (hearing and vision tests) function and answered questions about their health and driving mobility.

The researchers found that individuals with moderate or greater hearing loss performed more poorly on UFOV. UFOV predicts driving safety such as future crashes and on-road driving performance. Interestingly, those with hearing loss performed more poorly on this test indicating they were at higher risk for crashes. However, the researchers found that individuals with hearing loss did not change their driving mobility habits over time. The normal hearing, mild hearing loss and moderate or greater hearing loss groups reported similar miles driven, driving space, and avoidance of challenging driving situations as well as showed similar rates of driving cessation at the three-year interview.

These findings suggest that older adults are unaware of the negative driving safety consequences that hearing loss may pose and do not modify their driving mobility habits accordingly. Future research should investigate whether correcting hearing loss with hearing aids results in improved driving safety and mobility. In light of these results, health professionals should provide counseling to older drivers with hearing loss and policy should aim to address the public health impact of sensory impairments such as hearing loss on driving safety and mobility.

Bernadette A. Fausto, Jennifer J. Lister, & Jerri D. Edwards
School of Aging Studies and Department of Communication Sciences and Disorders, University of South Florida, Tampa, USA

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