A Meta-Analysis of Third-Party Disability Due to Hearing Loss

Gabrielle Picard1,2 | Paul Strutt2,3 | Greg Savage1,2
1. Department of Psychology, Macquarie University 2. Centre for Ageing, Cognition and Wellbeing, Macquarie University 3. Department of Cognitive Science, Macquarie University

BACKGROUND

• Age-related hearing loss is related to higher rates of depression, anxiety and social withdrawal in affected individuals, but less is known regarding the effect on spouses.
• The transferable impact of one person’s disability onto their surrounding network is known as Third-Party Disability (TPD).

TPD can be broken down into three main categories of difficulties for spouses: emotional impacts, communication impacts, and lifestyle impacts.

• Communication interventions and hearing aid interventions are the most common methods to address hearing loss.
• We aimed to conduct a meta-analysis to determine if communication and hearing aid interventions reduce TPD across the categories of emotional, communication and lifestyle impacts, and whether there is a difference in levels of reduction between intervention type.

METHODS

This meta-analysis was conducted within the guidelines of the following RCOG as suggested by Cochrane. Studies were included if their participants had age-related hearing loss, were aged over 45, with no known physical or mental disorders, and had a willing adult study partner. Further study inclusion criteria included using either a hearing aid or communication intervention, participants were assessed at baseline and post intervention, and measures covered spousal emotional, lifestyle and communication impacts.

Results

Random effects models were run due to heterogeneity across all three categories of third-party disability, stratified by intervention type.

Emotional Impacts

Communication Impacts

Lifestyle Impacts

DISCUSSION

Hearing aid and communication interventions provide significant and comparable benefits for spouses in the TPD categories of emotional and communication effects, but no significant improvement in lifestyle effects. This meta-analysis highlighted several key areas for future research to consider:

• Cognitive impacts on spouses were not considered across the literature
• There was little guidance for how to sort measures used by studies into categories of TPD, for example the SOS-HEAR (placed in lifestyle category) covered in part communication, emotional and lifestyle effects
• Significant differences between study designs
• Lack of normal hearing control groups to partial out ‘TPD’ sources in otherwise healthy older adult couples, such as age-related accumulation of disease

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