

Title of the study:

Assessing the use of the 'My Hearing Explained' tool to align communication strategies between adults with hearing loss and their communication partners

Introduction:

The impact of hearing loss on a person's quality of life is far-reaching, affecting their communication, cognition, close relationships and even their mental health. The journey through hearing loss and hearing rehabilitation is seldom a solitary one. It is well-established that hearing and communication difficulties experienced by a person with hearing loss (PHL) can have associated effects on the people they regularly communicate with, their communication partners (CP).

Involving CPs in the management of the PHL's hearing loss and rehabilitation can result in a shared responsibility, leading to communication and coping strategies that are better aligned with each other, resulting in improved audiological and social outcomes. The "My Hearing Explained" (MHE) tool, designed to translate hearing test results into terms and language more easily understood, could facilitate greater alignment between CPs and PHLs, helping them to develop a shared strategy to cope with their communication difficulties.

People are more likely to commit to a change in behaviour if they have shared their intended plan to change with a close friend or family member. In practice, this can take the form of a pre-commitment contract or 'nudge', where people are asked to sign a contract, committing to the change in behaviour. In this study we combined the MHE tool with a pre-commitment contract to encourage PHLs and their CPs to commit to aligned hearing and communication goals.

Research Question

Does the combination of a pre-commitment nudge and use of the Ida Institute's 'My Hearing Explained' (MHE) tool facilitate alignment of communication strategies between a person with hearing loss (PHL) and their communication partner (CP)?

Research Objectives

The specific objectives of the project are to:

1. Assess the use of the MHE tool in discussion between the PHL and their CP, and whether it improves the CP's understanding of the PHL's hearing loss, compared to the standard audiogram.
2. Investigate the PHL and CP's perceptions of hearing loss and the alignment of the communication strategies they intend to use.
3. Assess the value of a pre-commitment nudge in the setting and subsequent achievement of communication goals.

Method:

This study was conducted by researchers at the National Acoustic Laboratories (NAL) in Sydney, Australia. Eight dyads participated in this study, with each pair comprising a PHL and a CP. The PHL was required to be adults aged ≥ 18 years (no upper age limit), be fluent in the English language (written and spoken), have not had their hearing assessed by an audiologist in the last two years,

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and have a CP who is willing to attend the appointment with them. The CP could be anyone that the PHL communicated with regularly (e.g., a spouse, partner, sibling, or friend). The majority of the CP's were spouse/partner to the PHL.

Each dyad was asked to attend two research appointments, with the option to attend in-person at NAL or to conduct the appointments remotely or any combination. All dyads chose to attend the first appointment in-person at NAL, with some follow up appointments conducted via video conference or phone. At the first appointment, Dyads completed the Hearing Handicap Inventory for the Elderly (HHIE) and participated in separate one-on-one interviews, discussing their perceptions of the PHLs hearing difficulties and how it may affect their communication, followed by a full hearing assessment for the PHL.

Dyads were randomly allocated into one of two groups, with half receiving the hearing assessment results using the MHE tool and the other half receiving the standard audiogram. Following the results presentation, each dyad was given the opportunity to reflect on these results then asked to negotiate some communication goals together. The pre-commitment contract was then introduced to the MHE dyads only.

Both groups were asked to attend a joint follow-up interview four weeks later. At the second appointment, the alternate results method was presented and the PHL and CP were asked about their progress with their communication goals and what their next steps might be.

Key Findings:

Objective 1

The MHE tool appeared to be equally effective at conveying information about the PHL's hearing difficulties and facilitating goal discussion as the audiogram. Some participants suggested that the two tools were complementary and should be presented in tandem. CPs thought the 'brain energy' metric was important as they hadn't considered that moments in which they had thought their partner wasn't focused or concentrating, or was being lazy, was instead a consequence of their hearing loss.

While the HHIE scores of the PHLs changed very little between appointments, the scores of the CPs increased. This could reflect their greater understanding of the PHL's hearing difficulties. This explanation was supported by the follow-up interviews in which CPs reported increased awareness and tolerance of the PHLs hearing difficulties, of working together, of frustration with strategies not working, and of investigating hearing devices.

Objective 2

Through qualitative content analysis, we were able to examine the language used by the dyad in their interviews and discussions. The use of the MHE and the nudge did not influence whether the language used was more positive or more negative, with only one couple using more positive language in follow-up discussions. Dyads that used more negative language were more likely to have unaligned goals. No obvious differences were found between the groups in whether the language of each dyad was aligned or unaligned around their listening goals.

Objective 3

Dyads who signed the precommitment contract were more likely to talk informally about their goals and also more likely to have had a formal discussion about their goals by the time of the follow-up

appointment. They were also more likely to have achieved their goals by the post-intervention interview. From a clinical perspective, the precommitment contract was very quick to administer and did not feel out of place in the goals discussion.

Conclusion:

The MHE tool is an effective method for explaining hearing assessment results and can be used stand alone or in tandem with the standard audiogram to facilitate discussion and negotiation of communication goals for PHLs and their CPs. The pre-commitment nudge showed some promising results in increasing communication goal achievement in these dyads. Further investigation into the value of the pre-commitment nudge in conjunction with the negotiation of communication goals is warranted with a larger sample size.

About the author(s)

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Since joining NAL in 2014, Taegan has worked on a variety of projects with adults and children, in areas including hearing assessment, hearing aid fitting and hearing rehabilitation. She has developed a keen interest in behavioural insights, using these skills to shape and enhance research at NAL and to offer innovative research strategies to our research partners.

Figures

Appointment 1

Task	Time (min)	Person with Hearing Difficulties	Communication Partner
1	10	Pre-discussion questionnaire*	Pre-discussion questionnaire*
2	30	Individual Pre-intervention interview*	Individual Pre-intervention interview*
3	30	Hearing Assessment (remote self-test or in-person with research audiologist)	
4	30	Joint goal setting interview*	
		* Task can be completed as one appointment or separately, online or in person at NAL, your choice.	

Appointment 2: Four Weeks Later

Task	Time (min)	Person with Hearing Difficulties	Communication Partner
1	10	Repeat questionnaire*	Repeat questionnaire*
2	30	Joint Post-Intervention Interview*	
		* Task can be completed as one appointment or separately, online or in person at NAL, your choice.	

Figure 1: Research activities with hybrid or remote options

COMMUNICATION PARTNER DISCUSSION CHECKLIST

Instructions: Once a week, chat to each other about how you both feel you progressed with your shared communication goals. Have you been able to put your goals into practice? Has it been easy or hard? What have you done well? What could you improve?

We, _____ & _____ commit to having a chat about our goals on this day and time each week: _____ Day _____ Time

Signature 1: _____ Signature 2: _____

Tick a box below each time you have a chat:

1st chat 2nd chat 3rd chat 4th chat

Figure 2: The pre-commitment contract presented to the MHE dyads