



How should we define and measure hearing aid use success? Perspectives of adults who have hearing aids and hearing healthcare professionals.

Sian Calvert^{1,2}, Emma Broome^{1,2}, Ashika Shah³, Jean Straus⁴, Helen Henshaw^{1,2}

1. NIHR Nottingham Biomedical Research Centre; 2. Hearing Sciences, Mental Health & Clinical Neurosciences, School of Medicine, University of Nottingham; 3. INSPIRE Summer Research Internship Programme (INSRIP), School of Medicine, University of Nottingham; 4. Patient Research Partner

Hearing Loss, affecting one in five adults in the UK, can be managed using hearing aids. However, the number of adults using hearing aids is far lower than the number who could benefit from them¹.

Previous measures of hearing aid use, for example, the number of hours hearing aids are switched on, may not align with patient perspectives of what 'successful' use means. Consequently, clinical trials focused on improving hearing aid use may not be patient-centred. Defining 'successful' use is key to ensuring that future research and policy reflects patients' priorities.

Objectives:

To define and rank the most important aspects of successful hearing aid use by consensus, from the perspectives of:

- a) Hearing aid users
- b) Hearing healthcare professionals

2. Methods

Two separate 3-stage prioritisation processes were used to reach a consensus on what successful hearing aid use meant to a) hearing aid users and b) hearing healthcare professionals.

Participants were recruited via UK National Health Service (NHS) audiology and ENT clinics, social media, professional networks, and a leaflet distributed at the British Academy of Audiology annual conference in November 2021.

1) Survey 1



- a)"Describe what successful hearing aid use means to you" (adults with hearing aids)
- b)"Describe what successful hearing aid use looks like for adults who have them" (hearing healthcare professionals)

Responses from *survey 1* were collated, summarised, and then carried forward to survey 2 for ranking.

2) Survey 2

Participants were asked to read through all indicative statements and select their 10 most important, in ranked order.

3) Consensus workshop

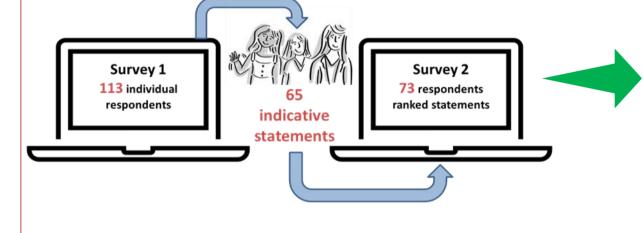


Top-ranked statements were taken to an online consensus workshop, where Nominal Group Technique² was used to achieve consensus on the top 5 priority statements to define hearing aid use success.

Results: Hearing aid users

Participants: Participants Workshop Survey 1 Survey 2 Number of n=113 participants Mean age in years 65.9 66.5 66.7 (SD, range) (12.5, 21-91)(12.8, 33-91)(14.1, 21-91)Males:Females 59:54 11:10

Survey responses:

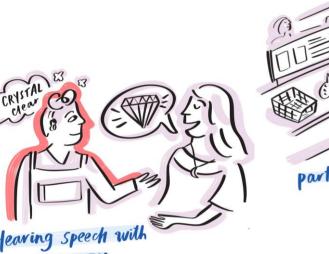


Survey 2: Top 15 ranked statements

- Q: Describe what successful hearing aid use means to you... Hearing speech with clarity
- Being able to join in conversations 3. Being able to understand what is being said in conversations and respond
- 4. Being able to hear well enough to participate in normal everyday life Being able to hear conversations over background noise Being able to hear other people clearly when they are speaking to me
- Being able to hear as well (or almost as well) as someone who does not have a hearing loss
- Being able to hear people speak on the telephone Being able to live an active social life
- 10. Hearing aid(s) that help my tinnitus
- 11. Improved hearing, although not restored 12. My hearing aid(s) being physically comfortable to wear
- 13. Hearing aids(s) that are well programmed to suit my hearing loss
- 14. Being able to hear well enough to participate in my hobbies and interests 15. Being able to hear and communicate with different groups of people

Consensus workshop: Top 5 statements to define hearing aid use success:









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4. Interim results: Hearing healthcare professionals

Participants:				Survey 2: Top 16 ranked statements
Participants	Survey 1	Survey 2	Workshop	
Number of participants	n=53	n=19	Pending	
Mean age in years (SD, range)	35.2 (8.9, 24-58)	35.4 (7.8, 25-55)		Q: Describe what successful hearing aid use I who have them 1. Improved quality of life 2. Improved ability to communicate 3. Feeling less isolated 4. Being able to participate in normal everyday life 5. Being able to participate in normal everyday life 6. Being able to achieve daily life goals 7. Improved hearing 8. Meeting individual's peeds
Males:Females	3:49 n=1 prefer not to say	1:17 n=1 prefer not to say		
Profession	Audiologist (24), Clinical Scientist (13), Other (10)*	Audiologist (5), Clinical Scientist (7), Other (n=3)*		
Years work experience (SD, range)	10.1 (8.2, 0-36)	10.2 (8.1, 1-35)		
Survey responses:				 8. Meeting individual's needs 9. Improved patient reported outcomes 10.Being able to hear and understand speech 11.Hearing speech with clarity 12. Being able to live an active social life

Describe what successful hearing aid use looks like for adults ho have them... Improved quality of life Improved ability to communicate

Being able to participate in normal everyday life effortlessly Being able to achieve daily life goals Improved hearing Meeting individual's needs

Improved patient reported outcomes .Being able to hear and understand speech .Hearing speech with clarity 12.Being able to live an active social life

13. Hearing aid(s) help to achieve listening goals 14. Hearing aid(s) that fit well and are correctly positioned in the ear 15.Being able to use and maintain hearing aid(s) 16.Being satisfied with hearing aid(s)

Consensus workshop:

Will be held online November 1st 2022 to register interest please email emma.broome1@nottingham.ac.uk

*Other – Survey 1: Trainee clinical scientist (6), Paediatric audiologist (4), Trainee audiologist (2), Practice Education Coordinator MSc in Audiology (1), Audiology assistant (1), Audiovestibular Physician (1), Specialist audiologist (1). Survey 2: Trainee clinical scientist (4), Practice Education Coordinator MSc in Audiology (1), Audiology

5. Conclusion and next steps

The findings indicate for hearing aid users, successful use of hearing aids was associated with effective listening communication, as well as device factors such as comfort.

For hearing healthcare professionals (provisional results), the top-ranked statements have a wider focus on improved quality of life, maintaining an active social life and reducing isolation, meeting individuals needs, and attaining listening/life goals.

Next, we plan to use these results to inform the most appropriate outcome domains and specific measures, that can be used to better assess hearing aid use in future research and clinical trials.

5. References

1.Hearing Link (2021).Facts about deafness and hearing loss. Hearing Link. https://www.hearinglink.org/ your-hearing/about-hearing/facts-about-deafness-hearing-loss/.

2. Jones, J., & Hunter, D. (1995). Qualitative Research: Consensus methods for medical and health services research. BMJ, 311(7001), 376.



