



Aalborg Universitet

AALBORG UNIVERSITY  
DENMARK

## Do Hearing Aids Help in Real-Life Work-Related Situations?

Narayanan, Sreeram Kaithali; Storbjerg Houmøller, Sabina; Wolff, Anne; Hougaard, Dan Dupont; Gaihede, Michael; Schmidt, Jesper Hvass; Hammershøi, Dorte

*Creative Commons License*  
CC BY 4.0

*Publication date:*  
2023

*Document Version*  
Publisher's PDF, also known as Version of record

[Link to publication from Aalborg University](#)

### *Citation for published version (APA):*

Narayanan, S. K., Storbjerg Houmøller, S., Wolff, A., Hougaard, D. D., Gaihede, M., Schmidt, J. H., & Hammershøi, D. (2023). *Do Hearing Aids Help in Real-Life Work-Related Situations?*. Poster presented at 16th Congress of the European Federation of Audiology Societies, Sibenik, Croatia.

### **General rights**

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal -

### **Take down policy**

If you believe that this document breaches copyright please contact us at [vbn@aub.aau.dk](mailto:vbn@aub.aau.dk) providing details, and we will remove access to the work immediately and investigate your claim.

## Do Hearing Aids Help in Real-Life Work-Related Situations?

Sreeram Kaithali Narayanan<sup>1</sup>, Sabina Storbjerg Houmøller<sup>2</sup>, Anne Wolff<sup>3</sup>, Dan Dupont Hougaard<sup>3</sup>, Michael Gaihede<sup>3</sup>, Jesper Hvass Schmidt<sup>2</sup>, Dorte Hammershøi<sup>1</sup>

<sup>1</sup>Department of Electronic Systems, Aalborg University, Aalborg, Denmark.

<sup>2</sup>Research Unit for ORL – Head & Neck Surgery and Audiology, Odense University Hospital & University of Southern Denmark, Odense, Denmark

<sup>3</sup>Department of Otolaryngology, Head and Neck Surgery, Aalborg University Hospital, Aalborg, Denmark.

**Background and Aim:** Information processing in challenging sound environments can affect the work-related performance of people with hearing impairment, and restoring hearing effectively can be critical for productivity and social well-being at the workplace. The study aims to understand various work-related environments to which hearing aid (HA) users were exposed, communication needs, and communication and user-related improvements after HA use.

**Method:** The data regarding the type of work, working hours, work-related sound environments, and HA effectiveness at work was collected using a non-standardized questionnaire.

**Results:** A total of 485 HA users reported that they were part of the workforce and had answered work-related questions, out of which we had valid data for 416 HA users. The mean working hours per week for the study population was 33 hours. Participants predominantly worked in health care and nursing (13%), administrative, business, and management jobs (13%), the building and construction industry (9%), and professions related to education and research (9%). Fourteen percent of the participant worked in other sectors that were not listed, and 16% did not disclose their profession. The 1029 responses from 416 participants to sound environments that the participants encountered at work included working in background noise (175 responses), multi-talker situations (269 responses), communicating in a secondary language (88 responses), telephonic conversations (215 responses), dynamic sound environments (265 responses), and none of the listed (17 responses). Two hundred and eighty responded that their communication with their colleagues at work improved after the HA use, while 139 responses indicated an improvement in communication with the clients. Telephone usage improved for 98 respondents, fatigue and tiredness were reduced for 69 participants, 52 had other improvements, and fifty-two (13%) responded that there was no improvement.

**Conclusion:** Understanding the work-related communication needs of HA users and related improvements can help to optimally fit the HAs and counsel the users for better use of the HAs.

**Acknowledgment:** The data was collected as part of the 'Better hEARing Rehabilitation' (BEAR) project. Support from the Innovation Fund Denmark (Grand Solutions 5164-00011B), Oticon, GN Hearing, WS Audiology, and the other partners is sincerely acknowledged. The partial funding of the research by Interfond is also acknowledged.

**Keywords:** work-related hearing aid benefit, Hearing aids, Hearing aid rehabilitation, self-reported outcome

### Details

**Status** : Master Review

**Presentation Preference** : Poster Presentation

**Abstract Category/Topic** : Hearing Aids

**Language** : English

**Saved:** : 30.1.2023 14:51:25

**Submit:** : 30.1.2023 20:55:54

### Confidential to Author and Editor

**Presenter** : Sreeram Kaithali Narayanan (skn@es.aau.dk)

[Close](#)

[Print](#)