

Aural rehabilitation programs for hearing aid users

Evaluating and clinically applying educational programs, supported via telephone and/or the internet and professionally guided by an audiologist

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- I. Lundberg, M., Andersson, G. & Lunner, T. (2011) A randomized, controlled trial of the short-term effects of complementing an educational program for hearing aid users with telephone consultations. *Journal of the American Academy of Audiology*, 22, 654-662.
- II. Malmberg, M., Lunner, T., Kähäri, K. & Andersson, G. (2017) Evaluating the short- and long-term effects of an internet-based aural rehabilitation program for hearing aid users in general clinical practice: a randomized, controlled trial. *Accepted for publication by BMJ Open*.
- III. Malmberg, M., Lunner, T., Kähäri, K., Jansson, G. & Andersson, G. (2015) Implementing internet-based aural rehabilitation in a general clinical practice. *American Journal of Audiology*, 24, 325-328.
- IV. Malmberg, M., Thorén, E.S., Öberg, M., Lunner, T., Andersson, G. & Kähäri, K. Experiences of an internet-based aural rehabilitation (IAR) program for hearing aid users: A qualitative study. *Submitted manuscript*.

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ABSTRACT

Many hearing aid users experience substantial communication difficulties that may affect their participation in daily life situations negatively. This experience can be addressed using follow-up rehabilitation programs, yet the overall availability of such programs in general clinical practice (GCP) is low.

The overall aim of this thesis was to evaluate, explore, and clinically apply aural rehabilitation (AR) programs administered from a remote location using randomized controlled trials (RCTs). In Papers I and II, each RCT evaluated programs for hearing aid users that were supported via telephone and/or the internet and professionally guided by an audiologist. The effectiveness of the programs was evaluated using a variety of outcome measures, and the results in an intervention group were compared with the results in a control group in each paper. Both RCTs were clinically applied. The process of implementing one of these RCTs in GCP is discussed in Paper III. Additionally, participants' views of participating in an internet-based AR program for hearing aid users were explored in Paper IV using a qualitative approach.

Providing the hearing aid users with follow-up rehabilitation programs reduced the self-reported hearing problems significantly more in the intervention group than in the control group, as presented in Paper I. Also, significant improvements in communication strategies for the intervention group compared with the control group were found in Paper II. Additionally, carrying out an internet-based RCT in GCP showed to be advantageous in several ways. Finally, overall positive experiences of participating in an internet-based rehabilitation program were revealed. Thus, providing AR programs for hearing aid users administered from a remote location and supported via telephone and/or the internet increases the possibilities for the audiologist in GCP to reach out to hearing aid users and offer an alternative cost-effective approach to AR.

Keywords: aural rehabilitation, hearing loss, counselling, hearing aids, internet interventions, randomized controlled trials, clinical practice, patient participation

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