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The Use of Remote Microphone (e.g. FM, 2.4GHz etc.) Technology by Young People with a Hearing Loss

Abstract

OBJECTIVE: Research has highlighted the benefits of improved signal to noise ratio (SNR) on classroom learning for young people with hearing loss. However, there is a paucity of research which explores the practical benefits/challenges of FM device use for young people in and out of school. This study consisted of two phases. The first phase focused on the views of young people on remote microphone usage. Phase 2 looked to explore the use of remote microphone technology during outdoor activities.

METHODS:

Phase 1: Data were collected via semi-structured interviews from 20 young people (11-19 years of age) using FM devices with their hearing aids (n=7) or cochlear implants (n=13). Interviews were transcribed and thematic content analysis was used to interrogate the data.

Phase 2: Videos were collected from young people and users of transmitters during outdoor activities. The views of different users of the transmitters and young people using the receivers were sought.

RESULTS:

Phase 1: Four main themes and 19 sub themes were identified in the participants' accounts which describe their experiences and views on FM technology use.

Phase 2: The videos identified the perspectives of teachers of the deaf, teaching assistants, activity leads and young people.

CONCLUSIONS: Participants in phase 1 of the study identified the benefits provided by FM technology in educational settings but many reported challenges associated with FM device use. The use of FM outside of educational settings was not common and very few were able to discuss the potential for this. Phase 2 highlighted the different views of those using transmitters and the young people using the receivers. Feedback highlighted an initial reluctance by some to trial the transmitters in situations that may be considered difficult to manage. However, after using the device both the users of the transmitters and the young people identified the benefits in communication and ease of listening the remote microphones provided. Overall a need to improve awareness and knowledge on the optimal use of FM technologies was identified.

Learning Objectives:

- Recognise the benefits and challenges to remote microphone usage for young people in particular.
- Appreciate the increased importance of an improved signal to noise (SNR) for young people with a hearing loss in different environmental settings.
- Identify situations where remote microphone use may provide increase benefit to young people with a hearing loss.