Language and Quality of Life in Children with Mild Hearing Loss

Abbey McPherson¹, Gwendalyn Webb¹, Carmela Miniscalco²,³,⁴ and Traci Flynn¹

¹Speech Pathology, University of Newcastle, NSW, Australia
²Dept of Paediatric Speech & Language Pathology, Queen Silvia Children’s Hospital, Gothenburg, Sweden
³Gillberg Neuropsychiatry Centre, University of Gothenburg, Sweden
⁴Dept of Child Neuropsychiatry, Sahlgrenska University Hospital, Gothenburg, Sweden
Traci.Flynn@newcastle.edu.au

Recent studies have identified an adverse impact of mild bilateral hearing loss (MBHL) on early language development (Carew et al., 2018; Ching et al., 2013; Tomblin et al., 2015; Wake, Hughes, Poulakis et al., 2004) as well as on later childhood and adolescence language development (Delage & Tuller, 2014, Walker et al., 2020). Furthermore, the few studies which have considered children with MBHL and their health-related quality of life (HRQoL) demonstrated inconsistent results (Niemensivu et al., 2018; Wake, Hughes, Collins et al., 2004; Wang et al., 2019). Further investigation of school-aged children with MBHL is required to determine whether language delay is transient or persistent.

This study explored the impact of MBHL on language development and HRQoL and investigated the relationship between these outcomes. Participants included 16 children (9-12 years) with MBHL. Language and self-reported HRQoL were assessed. Mean scores for language (total, receptive, expressive) and HRQoL were not significantly different to normative means. Two children (12.5%) met the criterion for language disorder (>1.25 SD below normative mean), and another two children were considered at risk for poor HRQoL (>1SD below normative data) (Haukedal et al., 2020). The participants scored poorest in formulating and recalling sentences, concepts and following directions, and psychosocial wellbeing for HRQoL, although not significantly below normative means. A moderate positive correlation between overall language ability and HRQoL scores was evident. Sex and hours of hearing aid use explained 15% of the variation in HRQoL outcomes; however, not statistically significant. Hours of hearing aid use significantly accounted for 27.5% of the variance in language outcomes. These results indicate some children with MBHL are at risk of impaired language and poor HRQoL as they progress through the school years. Further research is needed to develop evidence-based guidelines to support the management of older children with MBHL.

References