

Daily activities as described by Canadian children wearing hearing aids

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Objectives: This study aims to describe the daily activities of children who use hearing aids, across multiple time points by using a paper and pencil daily log. Other factors of interest include hearing aid usage patterns, environment, and hearing ability.

Background: Daily-life research (DLR) enables the collection of patient-focused, ecologically valid self-report data. The experience sampling method (ESM), emerging in the field of Audiology, includes repeated surveys of respondents' current experiences in their natural environments. This data can be collected by paper and pencil (e.g., daily logs) and computer-based formats (e.g., ecological momentary assessment) and aligns with technologically driven research questions, offering the potential to investigate real-world aided performance. Better knowledge of children's activities and environments that contribute to hearing aid outcomes could enable improved personalization of hearing aid fitting. Current efforts in DLR focus on adult listeners or on school-based listening activities and related acoustical demands, but further research is needed to better describe daily activities of children with hearing impairment as they relate to real-world hearing aid use and outcomes.

Methods: Activities were sampled across seven days using a self-report format with descriptive text and multiple-choice responses. 29 participants, aged 7-17 years were included with case-history information. Participants were asked to complete daily entries in the morning, afternoon and evening, outside of school time.

Results: Participants completed 492 entries describing 105 unique activities. Activities were transcribed and sorted into categories. Preliminary analyses offer a better understanding of the variables related to daily activity according to time of day, hearing aid use and reported outcome.

Conclusions: This study provides evidence of participation patterns of older children, when using hearing aids in non-school related daily activities. Findings have implications for researchers, clinicians and educators to better inform personalization of hearing aid fitting and future DLR.