Narrative Intervention with Children with Hearing Loss

Facilitating Complex Discourse

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Co-Investigators and Research Team

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Not-Pictured: Sandi Gillam, PI; Madeline Peterson; Emmy Zemke; Mary Ann Hammon; Denise Cardenas; Emily Lambert
Introduction and Background

- Children with hearing loss (HL) often demonstrate difficulty with language and literacy skills (Lederberg, Schick, & Spencer, 2013)

- Narrative discourse may be particularly challenging (Boons et al., 2013; Kretschmer, 1997)

- Previous studies have described effects of narrative intervention with children with HL, but not in all areas (Eden, 2014; Justice, Swanson, & Buehler, 2008)

- In this study, we sought to further characterize the narrative skills and complex language discourse abilities of children with HL before and after narrative intervention.
Research Questions

- Is there a relationship between children with HL’s participation in narrative intervention and...
  
  - Narrative proficiency
  - Holistic story quality
  - Grammaticality
  - Syntactic complexity
  - Lexical diversity
  - Lexical productivity
Participants

- 10 children with HL; 8 females, 2 males
- Ages 6;7-11;3
- 5 bilateral hearing aids, 4 bilateral cochlear implants, 1 unilateral cochlear implants
- Spoken language with SEE support at school
- No-treatment control group
  - 10 children aged 6;11-7;8
Intervention Procedures

- Two Texas-based SLPs provided assessment and intervention
- Test of Narrative Language-2 given pre- and posttest
- Intervention - Supporting Knowledge in Language and Literacy (SKILL; Gillam, Gillam, & Laing, 2014)
- Two types of stories recorded weekly
Results - Narrative Proficiency

![Estimated Marginal Means of MEASURE_1](image)

**Group**
- HL
- Typical
Results - Improvements over time?

- Holistic Quality - No, remained low throughout
- Grammaticality - No, remained <50%
- Syntactic Complexity - No, most utterances contained 1 clause or less
- Lexical Diversity and Productivity - No, remained low throughout
Results - Story Retells vs. Single Scenes

- Holistic Story Quality
  - Significant differences between story retells and single scenes before intervention
  - No significant differences after intervention

- Lexical Diversity and Lexical Productivity
  - Significantly lower in story retells than single scenes throughout intervention
  - Significantly fewer words than control group at posttest
Implications - The Bottom Line

- Narrative intervention using SKILL may be useful in improving narrative proficiency in children with HL, even when incomplete.

- To see improvements in other language areas:
  - Complete the intervention (see Israelsen, Winward, & Gillam, in preparation)
  - Specifically target each language area
  - Consider extra time due to impairment severity

- Conduct larger study with better experimental control