Narrative Intervention with Children with Hearing Loss

Facilitating Complex Discourse

Presented by: Sarai Holbrook
Co-Investigators and Research Team

Pictured: Kate Scott, Megan Israelsen, Samantha Winward, Aubrey Passey, Shaelie Huffaker, Devan Reische, Teigan Beck, Mark Lindstrom, Rebekah Forbes, Sierra Martin, Daylene Weller, Madeline Williams, Sarai Holbrook

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

- Group: HL
- Group: Typical

- Estimated Marginal Means
- TNL

Graph showing the estimated marginal means for MEASURE_1 with two groups: HL and 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
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