Research on sign language use with children who use cochlear implants: A critical analysis

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THE OHIO STATE UNIVERSITY
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Our objectives

Describe the general landscape of research on sign use with children who use cochlear implants

Identify two issues in studies on sign use with children who use cochlear implants

Identify the primary knowledge gaps found in the literature on sign use with children who use cochlear implants

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Background

In diversity there is beauty
and there is strength.
Maya Angelou

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Critical issues

Methodology/sampling issues

Intervention definitions

Definition of sign language

Critical issues

Methodology/sampling bias

- Fitzpatrick et al. (2015) systematically reviewed 11 cohort studies; rated quality of evidence using Grades of Recommendation, Assessment, Development, and Assessment (GRADES); 7 studies weak quality, 4 moderate quality

- Young et al. (2000) suggests "that children with greater residual hearing before implantation are more likely to be placed in auditory oral settings, so it may be difficult to separate some co-existing variables."

- Dettman et al. (2013) reported auditory verbal group performed better on PPVT than auditory oral and bilingual-bicultural groups; however, AV was older and had more device experience than the AO and BB groups

Critical issues

Intervention descriptions

- Total communication, auditory oral, auditory verbal, bilingual-bicultural described in broad strokes

- Inherent differences in approaches (e.g., parent involvement component of AVT vs. AO or BB programs)

- Lack of detail
  - Cited as limitation in systematic review of outcomes resulting in insufficient conclusion (Fitzpatrick et al., 2015)

  - Participants enrolled in "communication program" for at least 10 months; compared language outcomes of those in AO, AVT, and sign support groups (Yanbay et al., 2014)

Critical issues

Definition of sign language

- Total communication
- Sign support
- Sign language

Beyond definitions…
- What about teacher skill level?
- Allocation of spoken language vs. sign language (by teacher and child)

Knowledge gaps

The effects of sign language exposure on spoken language development are likely to be influenced by the following factors:

Quality of sign
- What is "good enough" for it to be beneficial (or detrimental) to spoken language?
- Role of parental proficiency
- Role of simultaneous production - when does it occur? how often?

Quantity of sign
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- Type of sign
- What role does iconicity of signs play?

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Knowledge gaps

Child factors

- Child's ability to learn sign and/or spoken language
- The role of sign language in the development of skills that support spoken language development (i.e., socioemotional development, parent-child interaction)
- Speech perception - does (and how) speech perception influence clinicians recommendations to use sign?
- Additional diagnoses - does the presence of other diagnoses influence clinicians recommendations?
- Etiology - what does the role of etiology play in clinical recommendations?

Parent factors

- Parent perspectives on mode (Watson, Hardie, Archbold, & Wheeler, 2007)

Knowledge gaps

Access/system factors

- What are important factors related to EI provider background and training (e.g., SLP, Aud, TOD) and competencies (ability to carry out JCIH recommendations) in influencing parent decision-making

- How does access to resources influence parental decision making regarding sign use?

Contact us

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