

*Infants and Toddlers with Hearing Loss:
How are We Supporting Their Language
Development, and How Does this Align
with Best Practices and Parent
Perceptions?*

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Outline & Goals

Thank you for joining us!

- ▶ Group discussion of the questionnaire you filled out
- ▶ Background information
 - ▶ What does research tell us is important to promoting children's language development?
- ▶ Results from a recent Michigan-based research study
- ▶ Group discussion: what are overlaps and differences?
 - ▶ Brainstorm about ways to bridge these gaps
- ▶ Videos and examples: opportunity to maybe learn something new!
 - ▶ Brainstorm about ways to incorporate these into visits
- ▶ Questions, comments

Group Discussion #1



- ▶ Let's discuss what you wrote down individually on the short questionnaire!
- ▶ What are the similarities and/or differences among the group?
 1. What information or suggestions do you provide to parents of children with hearing loss about interacting or communicating with their child?
 2. What information or suggestions do you provide to parents of children with hearing loss about how they can promote the language development of their child?
 3. What information or suggestions do you provide to parents of children with hearing loss about how they communicate with their child?

Adults' Roles in Language Development

- ▶ For both typically developing children and those with disabilities, the *quantity* of adults' language matters
 - ▶ The more, the better!
- ▶ Important aspects of quantity:
 - ▶ Overall words
 - ▶ Unique words



- ▶ What else may matter?



Hart & Risley, 1995; Huttenlocher, Haight, Bryk, Seltzer, & Lyons, 1991; Cruz, Quittner, Marker, Desjardin, & CDaCI Investigative Team, 2013; Desjardin & Eisenberg, 2007

Adults' Roles in Language Development

- ▶ How adults interact with children is also important
 - ▶ Quality
- ▶ Examples we'll focus on today:
 - ▶ Joint attention
 - ▶ Responsiveness, sensitivity
 - ▶ Specific types of language techniques



Joint Attention

- ▶ When adults talk about things that the child is focused on, the child learns words much faster



- ▶ Why would joint attention be important for language development?

Tomasello, 1988; Tomasello & Farrar, 1986; Meadow-Orlans, 1997; Waxman & Spencer, 1997

Responsiveness/Sensitivity

- ▶ Adults' attention to children's cues and the quality of their responses to those cues

- ▶ It is:
 - ▶ Dynamic
 - ▶ Reciprocal



- ▶ Why would responsiveness be important for language development?



Shin et al. (2008)

Language Techniques

- ▶ Specific ways in which adults use language
 - ▶ (e.g., closed-ended vs. open-ended questions)
- ▶ Certain techniques promote children's language development ("*higher-level techniques*"), while others are less influential to language development ("*lower-level techniques*")



Ortto, 2010; Tamis-LeMonda, Bornstein, & Baumwell, 2001; Cruz et al., 2013; Desjardin, 2006; Desjardin & Eisenberg, 2007

Language Techniques

- ▶ Higher-level technique: **Parallel Talk**
 - ▶ Talking about whatever a child is:
 - ▶ Look at, paying attention to
 - ▶ Interested in
 - ▶ Can be related to: objects, activities, topics of conversation
- ▶ Examples:
 - ▶ Child: "Bear!" [playing with a stuffed bear]
 - ▶ Adult: "He's so furry and big! GRR! He's going to come tickle you!"
 - ▶ Child: [playing quietly with stacking rings]
 - ▶ Adult: "I see a blue ring, and a yellow ring. Now you have the red."



Tamis-LeMonda et al., 2001; Desjardin, 2006; McNeil & Fowler, 1999; Cruz et al., 2013

Language Techniques

Higher-level technique: Expansion

- ▶ Restating the child's statement with a more complete/correct grammatical form
- ▶ Expanding upon what the child said



Examples:

- ▶ Child: "Dog bark!"
- ▶ Adult: "Yes, the dog is barking!" or "Yes, the dog is barking because he saw the kitty out of the window!"

- ▶ Child: "More!"
- ▶ Adult: "Ok, you'd like more of your banana. Yum!"

Tamis-LeMonda et al., 2001; Desjardin, 2006; McNeil & Fowler, 1999; Cruz et al., 2013

Language Techniques

Lower-level technique: Directives

- ▶ Giving directions
- ▶ Telling the child to do something specific



Examples:

- ▶ Child: [playing with plastic animal figurines]
- ▶ Adult: "Oh, look at this book! Let's read this."

- ▶ Child: [playing with a shape sorter]
- ▶ Adult: "Put this one in this spot. Right here."

- ▶ We could view parents motivations for using directives positively. Why would this be viewed positively?
- ▶ How could we help parents adjust their use of directives?

Desjardin, 2006; Desjardin & Eisenberg, 2007

Language Techniques

Lower-level technique: Closed-ended questions

- ▶ Yes/no questions
- ▶ Questions with only one 'right' answer



Examples:

- ▶ Child: "Baby!" [playing with a doll]
- ▶ Adult: "What color is his shirt?"

- ▶ Child: [walking around, looking at toys]
- ▶ Adult: "Do you want to play with the puzzle next?"

- ▶ We could view parents reasons for using closed-ended questions positively. Why would this be viewed positively?
- ▶ How could we help parents adjust ways of using of closed-ended questions?

Desjardin, 2006; Desjardin & Eisenberg, 2007

Group Discussion: #2

- ▶ Have your ideas changed or remained the same about the types of information that should be providing to parents of children with hearing loss?



Current Research

- ▶ **Based on what we know about:**
 - ▶ The ways in which parents' interactions or language influences children's outcomes
 - ▶ The important role of early intervention for children with permanent hearing loss
 - ▶ And how this can support parents to then support their children

- ▶ **I worked with families in Michigan to study:**
 - #1** ▶ The information parents report that they receive via early intervention service providers about how to promote their children's language development

- #2** ▶ Parents' language while playing with their children

How Data was Collected

- ▶ Recruitment primarily through Michigan's *Early On* program

Criteria for being in the study:

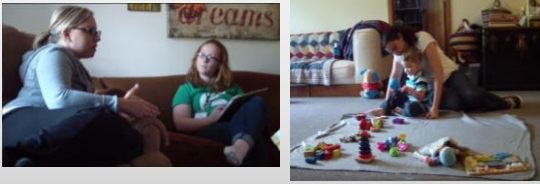
- ▶ **Children:**
 - ▶ Between 12 and 30 months of age
 - ▶ Enrolled in early intervention
 - ▶ No additional disabilities
 - ▶ Any: degree of hearing loss, hearing support, primary mode of communication (spoken, signed, etc.)



- ▶ **Parents:**
 - ▶ Typically hearing
 - ▶ English as primary language

How Data was Collected

- ▶ Home visit included:
 - ▶ Questionnaires, book reading, 10 minute free play, interview
 - ▶ ~2 hours
 - ▶ \$40 gift card, children's book

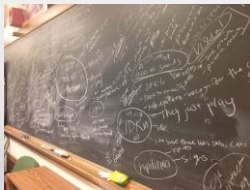


Participants

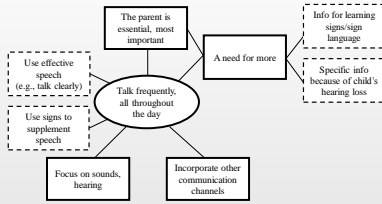
- ▶ Sample size = 12 families
 - ▶ Caucasian
 - ▶ 11 mothers
 - ▶ Income: 12-19k (n = 3), 40-60k (2), 80k+ (7)
 - ▶ Education: high school (n = 2), some college (3), degree (7)
 - ▶
- ▶ Children's characteristics:
 - ▶ Age in months: M = 21.6
 - ▶ 7 females
 - ▶ Mild (n = 4), moderate (2), severe (2), profound (4) hearing loss
 - ▶ Age at start of intervention, M = 6.7 months
 - ▶ Hearing aids (n = 8), cochlear implants (3)

Part 1

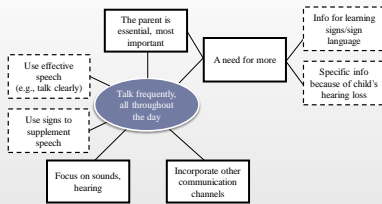
- ▶ What information did parents report that they receive?
- ▶ Identified of patterns or themes



Results: Information Received

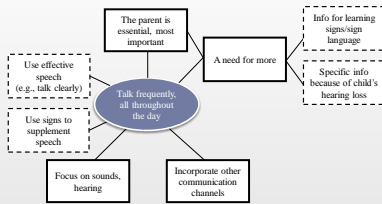


Results: Information Received



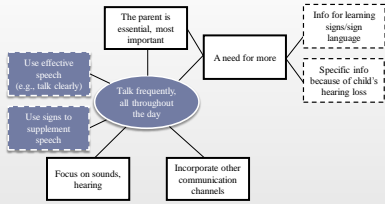
- ▶ Central, most prominent
- ▶ Talk throughout all everyday activities and routines
 - ▶ These activities may seem mundane, but are great opportunities for their children to learn language

Results: Information Received



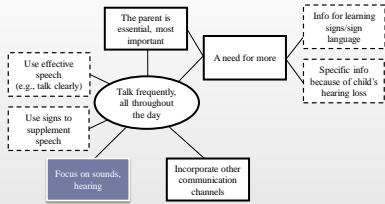
"Everybody through the program always says that no matter what you're doing, you should say everything that you're doing. Everything. [...] They'll pick it up because you're constantly saying everything that's going on: if you're going to the grocery store, if you're driving, if you're eating, if you're brushing their teeth. Every single thing that you do it should be constant language. [...] Pretty much non-stop talking." (110)

Results: Information Received



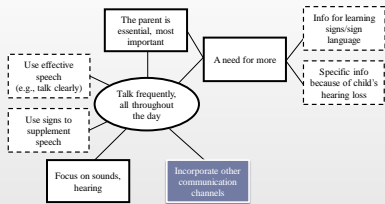
- ▶ Clarity of speech, saying things "right", pronunciation
- ▶ Signing and speaking
 - ▶ Handouts
 - ▶ Websites

Results: Information Received



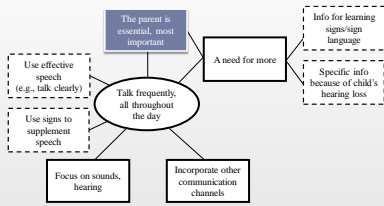
- ▶ Discussing or drawing attention to a variety of sounds
 - ▶ Spoken communication
 - ▶ Sounds within the environment
 - ▶ Toys and other objects

Results: Information Received



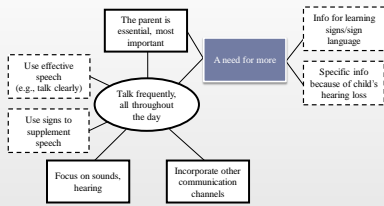
- ▶ Eye contact, being face-to-face
 - ▶ "One of the most important things is they like you to be at eye level with [your child] so they can see your whole face. Otherwise it is hard for them to pay attention or even hear." (110)
- ▶ Touch, to make connections with sounds

Results: Information Received



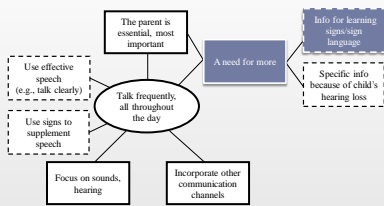
- ▶ The crucial role of the parents
 - ▶ “That basically that I’m his number one teacher.” (101)
 - ▶ “Well, they’re here twice a month, at best twice a week. That’s only two hours a week. So, if I don’t do it then it’s not going to get done. [...] That’s what she said the first time she came here.” (112)

Results: Information Received

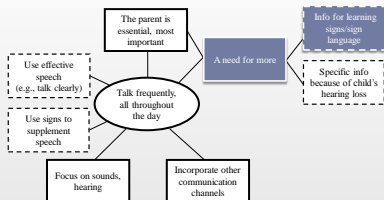


- ▶ Parents discussed a need for two types of additional information
 - ▶ This would make them feel more fully supported

Results: Information Received

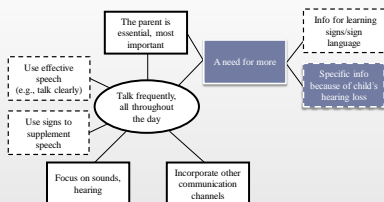


Results: Information Received

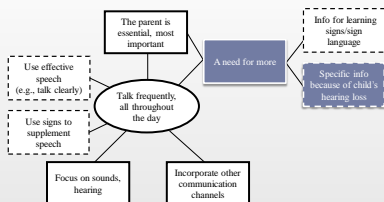


► "I think it would have been helpful if, I guess, if I could change anything—if I could have got assistance from early intervention in terms of learning sign language myself. That was something we totally had to do on our own [through classes]." (105)

Results: Information Received

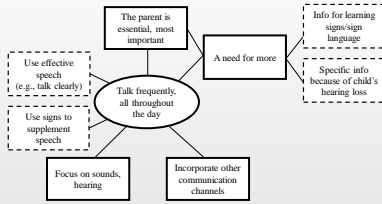


Results: Information Received



► "It's not bad for her to feel like she's any child and I'm any parent. I mean that's not a bad thing, but we do have a special situation here that I need to be on top of. And I just kind of feel like I'm coasting along like anyone else would that doesn't have a special situation, and I don't like that feeling. I kind of feel powerless and I question everything, and I don't have anyone telling me. They're telling me I'm doing good but they're not telling me anything **specific** I can do better, so I don't feel like I'm doing better." (111)

Results: Information Received



Overall Results

- ▶ **The information parents receive is mostly in line with current best practices**
 - ▶ Parents are the most important
 - ▶ Frequent communication
 - ▶ Ways to support language during everyday activities
- ▶ **However, there is room for improvement**
 - ▶ Parents' communication decision(s) must be supported in an unbiased way by trained professionals
 - ▶ Overall quantity of language is not only/most important
 - ▶ Parents themselves recognized that something more specific is needed

Group Discussion #3

- ▶ Reflection: survey and first group discussion
- ▶ What are overlaps and similarities between what you wrote down/we discussed in discussion #1 and the findings I just presented?
- ▶ What are the gaps between what you wrote down/we discussed and the findings just presented? What things did we discuss that parents didn't remember/discuss with me?
- ▶ Were any of these results surprising to you? Which ones, why?



Part 2

- ▶ What types of language strategies did parents use when they played with their children?
- ▶ Transcripts created of spoken language and signs
 - ▶ Quantities
- ▶ Coded for parents' use of specific language techniques
 - ▶ Qualities

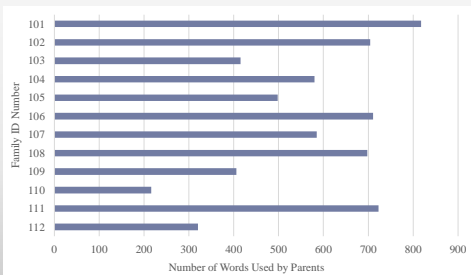


	Code	Code Name	Definition
Lower-Level	CQ	Closed-Ended Questions	A question that the child can answer with one word or that only has one specific or expected answer.
	DR	Directive	Giving directions via statements; telling the child to do something specific.
	IM	Imitation	Repeating the child's vocalization or verbalization; usually this will be an exact imitation, but it can also include other words, such as "hmm" or "yeah."
	LM	Linguistic Mapping	Putting the child's potential intended message or actions into words.
	NO	Noise making, onomatopoeias	Noises that imitate animals, objects, or actions.
	PE	Perpendicular Talk	A verbalization that relates to something outside of what the child is involved in or attending to, such as an object, activity, or topic of conversation.
Higher-level	RA	Responsive Acknowledgement	A phrase or word that acknowledges an utterance or action of the child; this could also be phrased as a question.
	EX	Expansion	Expanding upon the child's utterance; this can include making grammatical corrections or adding new information to the child's utterance.
	PA	Parallel Talk	A verbalization that relates to what both the parent and child are involved in or attending to, such as an object, activity, or topic of conversation.
	OQ	Open-Ended Questions	A question that the child can answer with more than one word or that could have more than one possible answer; this can also be a phrase ("Tell me...")
	RE	Response-Questions	When a parent changes the child's utterance into a question; this can include one or more words.

▶ Adapted from Desjardin, 2006; Cruz et al., 2013

Results: Quantities

- ▶ Some parents used much more language than others
 - ▶ Range: 320 to 818 words in 10 minutes
 - ▶ Nearly all of this was spoken language



Results: Qualities



- ▶ Parents' used lower-level techniques ~3 times more often than those shown to promote language development

Overall Results: Parts 1 & 2

Based on these findings...

- ▶ How might the information parents receive relate to their quantities or qualities of the language they use?



Connections I see...

- ▶ Receiving information about the importance of frequently talking, focusing on multiple communication channels (e.g., eye contact) + parents' use of parallel talk

Overall Results: Parts 1 & 2

- ▶ The information parents receive is influential
 - ▶ Parents receive quite a lot of information about the overall quantity of their language
 - ▶ Parents want more specific, nuanced information– this is an opportunity to incorporate information about *qualities* of language
- ▶ The majority of parents' language included lower-level language techniques
- ▶ Parents' use of parallel talk provides an opportunity to build on and expand their skills
 - ▶ Parents' skills at using parallel talk may provide a bridge to other beneficial aspects of language or language techniques

Group Discussion #4

- ▶ Video example
- ▶ Think, pair, share!
- ▶ What are strength-based ways we could encourage this parent to adjust their language?
 - ▶ Quantities
 - ▶ Qualities



Appreciation and Thanks

- ▶ Most importantly: to the families that participated
- ▶ *Early On* Center for Education, Faculty Grant Award
 - ▶ *Early On* county coordinators and service providers
- ▶ Fahs-Beck Fund for Research & Experimentation
- ▶ My mentors and team



Appreciation and Thanks

Thank you for joining us today and sharing your ideas!



Questions or comments?

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