### Building Family-Provider Relationships via Tele-Intervention

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#### Purpose

- Introduce coaching model for EI service delivery
- Demonstrate tele-intervention
- Share pilot study experiences
- Present family and provider perspectives
  - Strengths
  - Challenges
  - Recommendations



#### What is "Tele-Intervention"?

(ASHA uses "telepractice")

- Providing services via telecommunications technology
- Used to overcome access barriers due to:
  - Distance
  - Unavailability of specialists
  - Impaired mobility
  - Culture/linguistics



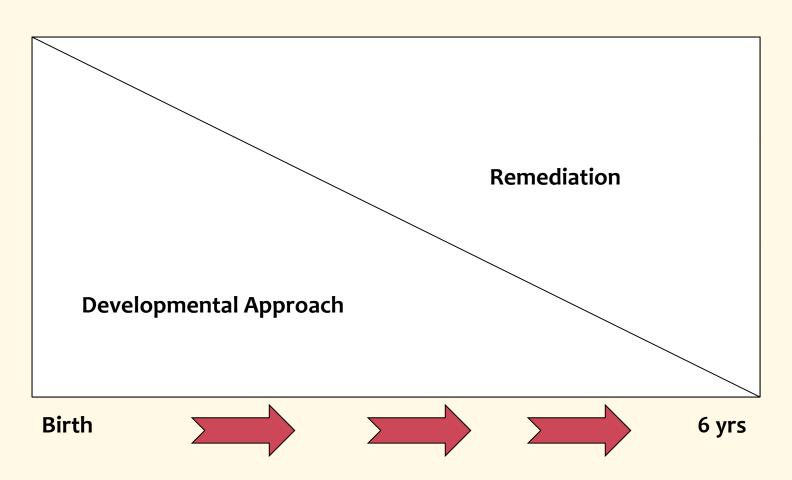


#### **Service Provision Goal**

- To provide all infants and young children with hearing loss and their families with services that are:
  - Timely
  - Comprehensive
    - Frequency, duration, and consistency
  - Coordinated
  - Effective



#### The Promise of Early Intervention





#### **JCIH 2007 Key Concepts**

- Informed family choice
- Decision-making process
- Range of options
- Unbiased presentation
- Dynamic process (family needs, desired outcomes, assessment guided)
- Providers w/expertise in childhood hearing loss





# Two Factors Predicted Language, Vocabulary, and Verbal Reasoning Skills at Age 5

Age at enrollment in El and family involvement

Family involvement explained most of the variance

Mary Pat Moeller (2000). Pediatrics, 106, p. 3

#### Therefore.....

• How do we facilitate Family Involvement?



#### **Support Family Decision Making**

**by...** (adapted from Roush & Harrison, 2009)

- Recognizing family challenges at identification/diagnosis of hearing loss
  - Respond sensitively to feelings, respect family decisions
- Using a family-centered team approach to encourage family participation
  - Listen to learn parents' priorities, interests, and concerns
- Providing unbiased information on communication approaches
  - Assist the family in exploring community resources to learn about communication approaches
- Communicating in culturally sensitive and understandable ways

### Family EI Tele-Intervention Sessions

Families – the primary facilitators of language (adapted from Rush & Shelden, 2008)



#### **Parent Role**

#### Active parent participation is key and required!

- Parents identify activities, strategies, learning opportunities, and practices that will enhance their child's learning and communication development
- Parents are able to demonstrate strategies modeled and/or discussed during the session
- Parents can decide which strategies and activities work best for their child/family
- Parent reflection on activities improves overall child participation



#### Practitioner Role (Teacher, Clinician, EI)

(adapted from Rush & Shelden, 2008)

- Primary person/coach using current evidence-based practices to facilitate listening and spoken language
- Focus of Intervention
  - Identify activities, learning opportunities, and current practices with the parents
  - Demonstrate and model practices discussed
  - Discuss which strategies/activities work well and discuss what we might want to do differently



## Sharing Knowledge and Skills with Families

- Fluent implementation (based on knowledge and experience)
- Teach parents to do the intervention
  - "By focusing on their children's needs and creating support for the children's development, we place parents' learning of new skills in the context of their goals for their children and families."
- Manage the parent teaching process

(Adapted from Kaiser & Hancock, 2003)



#### **Family El Sessions**

- Areas typically covered:
  - Audiological Management
  - Communication
    - Auditory Learning
    - Language Development
    - Speech Development
  - Development of Inner Discipline/Behavior Management
  - Cognition/Pre-Academic skills/Pre-Literacy





# Examples of Tele-Intervention to Deliver El Services to Families of Children with Hearing Loss



## Sound Beginnings and USDB Pilot Project

#### Birth to 3 year olds and families

- Tandberg Video conferencing equipment w/dedicated internet connections in family's home and provider office
- Families of 2 children w/hearing loss
  - 1 w/ bilateral coclear implants
  - 1 w/bilateral hearing aids
  - Middle-class, college-educated 2-parent families
  - Little tech experience beyond email/internet search
- Received language intervention for 1 hour/week via Tele-Intervention
- Received HV's for general developmental issues 1-2 hours/month via USDB



# Family Interview Findings based on external evaluation What's Different About T-I?

- It's hard to describe...but it's different!
- Parent is the main person interacting with child (vs the provider)
- Child is more responsive to parent
- Therapist provides specific direction to the parent (vs the child)
- Provider has high level of expertise otherwise not available in the community
- Provider is very specific in direction, reinforcing, encouraging



#### Would Families Choose T-I over Traditional HV's?

- Yes, definitely!
- Predictable format, schedule, materials
- More control of family routine: Gives us our lives back...
- Child "stranger anxiety" not a problem
- Can hold sessions when child/family member has minor illness
- Recordings allow other family members to be involved
- Can involve other providers (i.e., audiologists)



### Family Perspective: What are the Benefits of T-I?

- Stronger parent knowledge of language development process
- Increased skills and confidence in promoting child's language, listening
- Increased child responsiveness to parent
- Enhanced child language development, listening skills
- Increased skills of family members as coaches themselves



## Family Recommendations for Organizing Sessions

- Dedicated equipment and room w/door
- Tech support person for training in home
- Send materials, lesson plans ahead of time
- Involve children in preparing for session
- Let child interest direct activities
- Reinforce parents frequently, specifically
- Have recordings uploaded quickly for others to view





#### **T-I Session Routine**

- Discussion of goals from the previous week
  - Update on new communication milestones, new behaviors, sounds, words that have emerged
- Review of goals for current session
- Demonstration of new or ongoing strategies, techniques with appropriate activities
- Coaching the parent as he/she performs the activity



#### **T-I Session Routine**

- Discussion of continuation of goals or selection of new goals based on present performance
- Discussion of integration of goals into the daily routines of the home
- Summarizing of the session and goals for the coming week
- Allowing questions from the parents about next steps, goals, short- and long-term outcomes



#### Nancy & Alex





#### Nancy & Alex



#### Nancy & Alex



#### **Provider Perspective: Logistics**

- Use of Static IP Address Essential
- Broadband connection or higher
- Use of "high-end" videoconferencing equipment placed in the home
- Equipment training with the parents needed, but brief
- DVD Recorder for capturing the sessions and sharing with working parent



#### **Provider Perspective: Logistics**

- High-quality microphone at both sites
- Use of a document camera to show smaller toys, books
- Planning therapy sessions requires more time, logistics due to a pure coaching model
  - Gathering of toys/activities and communicating in advance with the family
  - Bigger toys!
- Sending activities to the family to have



#### **Provider Perspective: Logistics**

#### Challenges:

- High-speed internet connections not available everywhere
- Cost of 'high-end' videoconferencing equipment
- Units are stationary in a designated room all of the activities must be in that room
- Clinicians/practitioners who are "techno-phobes"
- Coaching parents/family members doesn't come naturally to some professionals



#### **Provider Perspectives: Outcomes**

- Children are acquiring communication milestones that approximate or are equal to their hearing peers
- Families/parents are more confident in their own ability to facilitate listening and spoken language goals
- Fewer cancelled sessions and more overall intervention being provided over time



#### Potential for T-I Expansion

- Training University students:
  - Unobtrusive observations
  - Recordings for targeted feedback
  - Decreased travel time = more clinical hours
- Bringing expertise to rural areas
  - Greater frequency of intervention
- Coordinating with other providers



### Questions? Comments? Ideas?



#### Thank You for Listening!

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