Tele-Intervention Meets the Listening, Language and Speech Needs of Children with Hearing Loss

Cheryl Broekelmann MA LSLS Cert.AVEd
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Agenda

• 5 minutes-Introduction and Disclosures
• 25 minutes-Overview and Background
• 20 minutes-Video Clips of Coaching
• 10 minutes-Wrap Up and Questions

Disclosure of Proprietary Interest

• St. Joseph Institute for the Deaf (SJI) is incorporated as a 501(c) (3) not-for-profit school. The presenter is an employee of SJI and receives salary, but no additional compensation. Our intent is to inform others about our experiences using internet therapy in order to better elicit listening and spoken language for children who have hearing loss.

Learner Outcomes

• What are the key aspects of a coaching model as it relates to therapy delivered using the internet?
• What are components of internet therapy for children with hearing loss?
• What are listening and spoken language strategies?

What is ihear?

• An Internet Therapy Program designed to bring listening and spoken language therapy services to families and children regardless of where they live.
• One-on-one listening and spoken language therapy
• Listening and Spoken Language Specialist (LSLS)
• Sessions designed to work directly with families or school districts using a coaching process.

Components of Internet Therapy

• Coaching Model/Adult Learning Theory
• Lesson Plans (iCCARES)
• Meets the needs of the child (iTOTS)
• HIPAA and FERPA compliant
Coaching is:

- “... an interactive, nonlinear approach to supporting another person in his or her attempts to refine knowledge and skills. It provides a structure for developing the competence and skills of family members and early childhood practitioners to support a child’s participation in home and community in meaningful ways.”

(Hanft, Rush, Sheldon, 2013)

Why the Coaching Process?

- Empowers families and educators to grow in confidence and competence
- Collaborative strategy between the coach and the implementer, parent or caregiver
- Supports the implementer, parent or caregiver to develop new skills using existing skills
- Skills are reinforced outside the session

Coaching and Adult Learning Theory

1. Joint Planning
2. Observation
3. Action
4. Reflection
5. Feedback

Generalizing knowledge and applying to other situations

I®Hear® Digital Lesson Plans

- Interactive, objective based lessons
- Flexible to meet the needs of the students, families, and the school professionals
- Each lesson has objectives related to: iCCARES
  - Cognitive Development
  - Coaching Strategy for the School Professional
  - Auditory Development
  - Expressive Language Development
  - Receptive Language Development
  - Speech Development

Internet Therapy Outcome Tracking System (iTOTS)

- Systematic data collection from inception
- Upon acceptance, baseline data is gathered from referring partners or assessment is done with the ihear therapist.
- Reassessment is conducted every 6 months.
- Needs derived from norm-referenced assessments are applied to criterion-referenced tools to determine objectives.
- Objectives are embedded in the digital-lesson plans.
- Data is taken at each session on the child’s ability to use the chosen objective.

Changed World for Hearing Loss

- Advances in technology
- Hearing Aids
- Bone Conduction Hearing Aid
- Cochlear Implant
- Early identification and intervention are proving that auditory-based intervention is enabling children with all degrees of hearing loss to “have access to spoken language through listening”.

Warren Estabrooks
Developing Spoken Language through Listening

- We hear with the brain
- The problem with hearing loss — It keeps sound from reaching the brain. (Cole & Flexor, 2007)
- Access auditory brain centers during time of maximum neuroplasticity
  - Appropriate and consistent use of hearing devices
  - Optimum listening environment
  - Provide listening/language rich environment
  - Audiological care and management
  - Listening therapy in which auditory skills are systematically developed and practiced

Detection

- “Listen”
- Talk to your baby!!
- Parentese
- Proximity to the child and the microphone of the hearing device
- Acoustic Highlighting
  - Emphasizing a word or phrase
  - Indicate to the child a key word

Auditory Discrimination

- Sound Object Association:
  - Onomatopoeias
- Songs
  - Very distinct in terms of pattern (duration, intensity, and pitch)
- Minimal Pairs
  - Discriminate the differences in two sounds within a word that are minimally different in format information

Auditory Memory

- Nursery Rhymes and songs
- Expansion of Language
  - Vocabulary
  - Imitation
  - Modeling
  - Increase of Mean Length of Utterance

Auditory Feedback Loop

- A child’s ability to use their residual hearing to self-monitor their own speech and language
  - Competent language users are able to listen to what they are saying at the same time that they are saying it
  - Able to know when they make a speech or language error and are able to correct it

Questions?
References


References cont.