

Bridging Distances with Tele-Therapy for Children with Hearing Loss



St. Joseph Institute for
the Deaf
2009

Agenda

- Introductions-SJI Directors, COO, Early Childhood Director, Transition Coordinator
- Changed world
 - Facts about Hearing Loss
 - Considerations- amplification
 - Paradigm Shift
 - Implications
 - Outsourcing- Tele-therapy
 - Partnerships



Facts of Hearing Loss

- 3 out of every 1,000 newborns are born with a profound hearing loss. (33 babies everyday).¹
- 90% of those infants are born to hearing parents
- 98% of all babies born in MO, IL, KS, have a hearing screening at birth.
- 45% actually get an IFSP
- Infants identified can be fit with amplification as young as 4 weeks of age

¹Kemper, A.R., & Downs, S.M. (2000, May). A cost-effectiveness analysis of newborn hearing screening strategies. Archives of Pediatric and Adolescent Medicine, 154(5): 484-488.

Cunningham, M., & Cox, E.O. (2003, February). Hearing assessment in infants and children: Recommendations beyond neonatal screening. Pediatrics, 111(2): 436-440

Changed World for Hearing Loss



- Advances in cochlear implant and hearing aid technology

Changed World for Hearing Loss



- 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

Paradigm Shift

- From using technology and a more visual approach to using technology to create an accessible auditory world for children with hearing loss.
- From training the brain to substitute visual cues to recognizing sound and developing the brain naturally. (Carol Felxer)

Technonogy is NOT correction:

- Cochlear implants do not restore normal hearing.
 - Hearing through a cochlear Implant is different from normal hearing
 - Intense instruction in auditory skills helps children learn to listen and interpret what they hear through cochlear implants and hearing aids

Cochlear implants/digital hearing aids, stimulate auditory neural connections in the brain.

- These connections are the foundation for learning spoken language, reading and academics. (Gordon, Papsin, and Harrison 2003)
- Building neural pathways at an early age(birth-3) is essential for normal executive function.
- Inadequate auditory sensory stimulation of the brain can affect other areas of the brain.

Implications

- Early identification and intervention can result in normal development by age 5.
- Early intervention impacts early childhood language development
 - Helps in development of age appropriate language
 - Incidental learning of language is poor
 - Children need explicit, repetitive instruction, within context for it to have meaning

What does Early Intervention do?

- Coach parents to be a part of the habilitation process
- Educating children early in favorable “signal-to-noise ratio” environments improves auditory brain development
- Focus on more than one year growth in listening, speech and spoken language
- Goal- to “catch up” with peers by school age

Implications

READING

- Phonemic awareness is developed auditorily and is the core of language development and reading
- Language deficits impair ability to access literacy and curriculum
- Importance of hearing to read and reading to learn

Low incidence impacts school districts by:

- Need to create programs
- Providing homogenous groupings
- Hiring trained staff
- Communication choice (auditory/oral, total communication, ASL, etc.)



Where? How?

St Joseph Institute for the Deaf provides:

- Developmental auditory/language grouping
- Individualized speech, language, and listening therapy
- Excellent signal-to-noise ratio environment
- Use of and training of children with personal FM equipment
- Trained staff in auditory-oral/verbal approach (partnering with local Universities for trained staff)
- Focus on academics, so children can enter mainstream prepared
- Parent training at regular intervals
- Typical peers in classrooms
- Successful mainstreaming transitions

“Out Sourcing” with SJI

We can provide services through tele-therapy.

- One-on-one auditory-verbal therapy
- LSLs trained staff (Listening and Spoken Language Specialist)
- Sessions designed to work directly with therapist or through an adult- parent, teacher, SLP, or aide



Therapy focuses on:

- Equipment functioning-Ling 6 sound check
- Listening as a continuum- detection, discrimination, identification, comprehension
- Verbal responses- auditory feedback loop
- Language development- pre-linguistic skills
- Repair strategies

What is a “Listening and Spoken Language Specialist”?

- A Listening and Spoken Language Educator/Therapist (LSLS Cert. AVEEd/AVT) teaches children with hearing loss to listen and talk exclusively through listening and spoken language instruction.
- Each individual goes through rigorous training and must pass an exam administered by the AG Bell association.

Use of auditory/verbal strategies

- Acoustic highlighting
- Pausing/waiting
- Auditory closure
- Rewording/rephrasing
- Asking “What did you hear?”
- Providing alternatives
- Labeling by category
- Sandwiching
- Use of hand cue
- Use of music, singing, rhymes, rhythm

Technology Needs:

- Access to fast speed internet
- Computer(1.8ghz processor, 512 mb RAM)
- Web camera
- Software (video conferencing)
- * Must be FERPA compliant

Forming School Partnerships

- District relationships important to SJI
- A provider for auditory-oral/verbal approach
- Close communication- staff/district/parents
- Consult before/during IEP process
- Outreach supports for transition-training for staff
- or disability awareness for students

Additional Resources

- Informational material provided by DESE is available
 - Facts about cochlear implants
 - Facts about educating children with CI's and hearing aids
 - Facts about hearing loss
 - State resources
 - “Did you know?” documents
 - <http://www.dese.mo.gov/divspeced/EffectivePractices/HearingImpaired.htm>

Questions?

- You can find St Joseph Institute for the Deaf on the web at www.sjid.org
- A.G. Bell association www.agbell.org
- For more information on LSLIS certification see www.agbellacademy.org

