

Teaching Multilingual CI Children and Families

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ML/ESL Families make up an increasingly large proportion of caseloads

- ML = Parents speak English and another language fluently
- ESL = Parents speak limited or no English
- EXF = Extended Family Member's Language and Culture

Children with profound hearing loss exhibit significant deficits/delays in mastering one spoken language

For this reason, clinicians have been reluctant to recommend bilingual language environments for children with cochlear implants.

In U.S., parents of children with cochlear implants often have been discouraged from using a language other than English in the home.

Cochlear implants provide broader access to spoken language code than was available to most profoundly deaf children with HA's

Natural, incidental learning of language possible with CI's, including over-hearing of conversation, making multi-lingual skills more realistic

Children receiving CI's at very early ages, during peak language-learning time

Language is a component of larger issues of Culture:

- Social Customs
- Religion
- Communication Styles
- Food/Eating Rituals
- Music
- Roles of Parent/Grandparent/In-laws
- View of Children
- Gender Roles
- Attitudes re: disabilities

Children in ML Group - Research Question

- What is the time course of development in children learning more than one spoken language via a cochlear implant?

Published Data:

- Robbins, AM, Green J, Waltzman, SB. (2004) “Bilingual Oral Language Proficiency in children with Cochlear Implants.” *Archives of Otolaryngology, May 130*, 644-647
- Waltzman SB, Robbins, AM, Green J, Cohen, N.(2003). “Second Oral Language Capabilities in Children with Cochlear Implants.” *Otology & Neurotology*, 24: 757-763.

Subject Characteristics

- N = 13; 12 congenitally, profoundly deaf children
- 1 profoundly deaf child with progressive loss
- Oral communication
- Bilingual environments
- Nucleus-22 or -24 device
- CA range: 1y 8 m – 15 y 5 m
- Age at CI range for congenitals: 6m - 2y 11m
 - *progressive child implanted at age 10

Second Languages of Subjects

S1	Hebrew	S8	Korean
S2	Yiddish	S9	Hebrew
S3	Armenian	S10	French, Spanish, Arabic
S4	Yiddish	S11	Yiddish
S5	French, Hebrew, Arabic	S12	Armenian
S6	Hebrew	S13	Hebrew
S7	German		

Language Assessment Tools

- Reynell Developmental Language Scales (RDLS)
- Oral and Written Language Scales (OWLS)
- Student Oral Language Observation Matrix (SOLOM)

Standardized English Language Tests

Subjects younger than age 4:

- Reynell (RDLS)- Object manipulation, naming, description, based on questions of varying length and complexity

Subjects age 4 and older:

- (OWLS) – Picture selection, question response, sentence completion. Also: Conversational discourse, humor, idioms, multiple meanings, taking another's perspective

Assessment of second language proficiency

All Subjects:

- SOLOM
- Designed to rate second language proficiency in students whose native language is not English
- Series of structured interview questions; conversational observation
- 5-point scale across five communication domains: comprehension, fluency, vocabulary, pronunciation, grammar

SOLOM Language Proficiency Categories

- Phase I: Early Production
- Phase II: Speech Emergence
- Phase III: Intermediate Fluency
- Phase IV: Advanced Fluency



SOLOM scores

- Range of 2nd language skills across children spanned from Phase II (Speech Emergence to Phase IV (Advanced Fluency)
- 7 different languages represented as the 2nd Language
- 7 children tested all 3 intervals:
- Average SOLOM score Year 1 = 1.7
- Average SOLOM score Year 2 = 2.4
- Average SOLOM score Year 3 = 3.3

Language Results

- 10/13 children achieved standard scores within the average range.
- Remaining 3 children only slightly below.
- Appropriate levels of second language acquisition documented on the SOLOM
- No plateau observed over three year period

Successful Bilingual CI Children

- Parent Proficiency in both languages
- Most implanted before age 2
- Excellent perception skills
- Intensive aural-oral therapy
- Parents used only English from diagnosis until 6 – 12 mos post-CI
- Cultural/religious opportunities
- Therapy or school in other language
- Mother tongue – language of the heart

Parent Proficiency

- Parents fluent in the languages they used.
- Children exposed to native speakers of the language.
- Most adults used rich and complex forms in natural conversation.
- Continuum of proficiency in 2nd language appears to mirror natural exposure.

CI children need rich, complex
and natural models of a language
in order to learn it – especially
suprasegmental patterns of a
native speaker

When to Recommend Multilingual Exposure for Child in ML Home

- Early age at CI (before 2 yrs ?)
- Good speech perception skills with CI
- English skills progressing adequately
- Parent Motivation
- Child exposed to natural and complex models of the languages
- Opportunities to use in meaningful situations
- All things being equal: The earlier the better

Possible Contraindications for Multilingual Exposure in ML Home

- Late age at ID/Intervention
- Late age at CI (after 4 yrs ?) with limited hearing experience or benefit pre-CI
- Poor speech perception skills with CI
- Partial Insertion of electrode
- Child struggling with Language acquisition
- Family Support Issues
- Other clinical findings

Children from ESL Families

- Language use not an automatic contraindication
- I TELL PARENTS: When parents don't speak English, this slows child's CI progress - parents can't advocate as well within educational/medical bureaucracies
- Can make up for some of that with intense parent commitment
- Show sensitivity to cultural customs/taboo
- However...deafness may supercede temporarily

N.B: On average, clinician spends about twice the clinical hours serving an ESL child and family

Family Counseling Pre-CI

- Neither parent fluent in English: use interpreter
- A-T-T Language Line Contact: Saul Schulman
800-752-6096 Opt. 9 ext. 7510
- Complete BIFI
- Queries re: cultural communication customs/taboo
- Watch videos of CI children using same language
- Provide access to other families from same language background
- Write notes from meeting – give copy to parents
- *Give lots of printed info in English, being sensitive to parent education levels*

Bilingual Family Interview- BIFI (AM Robbins, 2003)

- Frankness from family critical
- Self-rate speaking ability of each parent independently - In English In 2nd lang.
- Self-rate understanding ability of each parent independently – In English In second language
- Rate ability of others in home – In English In 2nd lang.
- Cultural/Social/Religious network – In English In 2nd lang.

Assessment/Progress Monitoring

- Clinician assess child in English
- Clinician use second-language test only if competent in that language:
- PPVT, Woodcock-Johnson, other translations
- Auditory Milestones in first year of device use: Red Flags Procedure (Robbins, 2005)
- Parent report for second language McArthur, IT/MAIS, MAIS,
- Visual tools to convey progress or lack of
- SOLOM and clinical observation of child conversing with native speaker

Parent-Child Therapy with ESL Families

- Re-establish their critical role in child's success
- FAMILIES LEARN GOOD COMMUNICATION TECHNIQUES IN THEIR LANGUAGE
- Parent teams in EVERY SESSION – coaching and modeling
- Simple homework – worksheet, flashcards – every session
- Encourage parents to learn English as a gift to their child – to navigate system – not to speak to child

Coaching

- Strong voice
- Eye contact
- Slower Rate
- Call child's name
- Keep at ear level
- Quiet environment
- Acoustic highlighting
- Cues for comprehension
- Model given
- EQUIPMENT
PRACTICE!
- Give more written notes/
info

Techniques

- Clinician model in English
- Parent re-do in 2nd lang
- Clinician feedback
- Lots of compliments
- Parent tries again
- Simple homework
- Eng. Vocab for parents
- John Tracy Clinic
- Every voice important-
relatives attend sessions
- Write Everything Down

Music – Universal Tool

- Reinforce active listening skills; Motivate!
- Stimulate verbal/motor responses
- Adapted to any age, ability, or culture
- Nurture creativity; Build sense of community
- **Chris Barton's Adv. Bionics Webclasses**
- **Chris Rocca "Music Time" – Adv. Bionics/Ear Fndt**
- TRADITIONAL SONGS
- ADAPTED SONGS e.g., "Lechita"
- ORIGINAL SONGS "Ladybug, Ladybug"
- AS YOU NEED THEM SONGS "Time to Say.."

"There would be no music and perhaps, no need for it if it were possible to communicate verbally that which is easily communicated musically"
E. Thayer Gaston

EXF Group – Extended Family Member's Language and Culture

- Child not exposed to second language daily
- Family Members – Language and Culture
- Ways to preserve cultural heritage
- Music
- Games/Play Routines
- Traditional festivals/holidays/celebrations
- Food/Mealtimes/Cuisine

ESL Children with CI-Summary

- Bilingual proficiency possible in early-implanted children
- Clinicians uninformed about bilingualism
- *Recommendation for non-fluent families to speak English to child is ill-advised*
- Professionals need training on special ways to work with such families

Recommended Resources

- Dave Sindrey, “Elf on a Shelf” in Spanish/English. Available from AG Bell and Wordplay Pubs.
- Teachingmadeeasier.com
- John Tracy Clinic
- Learn to Talk around the Clock
- Suenos Realizados and other videos from AG Bell

Additional References for this Presentation:

- *Language Development in Children with Cochlear Implants*. By Amy M. Robbins, in S. Waltzman and T. Roland (Eds.) Cochlear Implants, 2nd Edition (2006) NY: Thieme Medical
- “Clinical Management of Bilingual Families and Children with Cochlear Implants.” Amy M. Robbins, *Loud & Clear!* Issue 1, (2007) Adv, Bionics Corp.
Download pdf at: www.bionicear.com