The Medical and Educational Teams: Working Together in North Carolina to Improve Outcomes

Krista S. Heavner, MS CCC-SLP; LSLS Cert AVT
Erin Thompson, MS CCC-SLP; LSLS Cert AVT
Sherri Vernelson, M Ed; LSLS Cert AVEd

ACIA 2014
Students With Disabilities in NC

[Graph showing the number of IEPs for total, hearing impaired, deaf, and deaf/blind students in NC.]
Communication Outcome

Percentage of Families Choosing LSL

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Outcome</td>
<td>0</td>
<td>100</td>
<td>90</td>
</tr>
<tr>
<td>Percentage of Families Choosing LSL</td>
<td>20</td>
<td>80</td>
<td>70</td>
</tr>
</tbody>
</table>

The Bigger Picture

• Children who receive cochlear implants at a young age have the potential to obtain spoken language skills commensurate with same-age peers with typical hearing
  
  Niparko et al., 2010; Geers et al, 2009; Robbins et al, 2004

• Some children with cochlear implants continue to demonstrate significant delays in literacy and language skills
  
  Tobey et al., 2013; Geers and Hayes, 2011; Geers et al, 2003
Our Question

Does specialized education, training and support of professionals working with children who are deaf and hard of hearing have a significant impact on educational outcomes?
Support for Our Question

- Without access to well-trained professionals, children with hearing loss whose families seek spoken language outcomes will not fully achieve the communicative potential that is possible.
  
  Houston and Perigoe, 2010

- ~ 65 DHH teacher preparation programs in the US and only 11 programs focus primarily on listening and spoken language.
  
  Lenihan, 2010
Support for Our Question

- Survey of NC Speech-language Pathologists
  - 190 school-based
  - 79% - little to no confidence managing CI technology or providing services
  - 47% - no formal instruction or only one college lecture on CIs.

Compton, Tucker, and Flynn, 2011
What Are the Needs?

- Families should have access to quality services from well trained professionals
  
  JCIH, 2007

- Qualified professionals to serve children who are deaf and hard of hearing
  
  Roush, 2011

- Coaching and mentoring of professionals
  
  Killion et al, 2012; Wilson et al, 2010

- Telepractice for service delivery to remote areas
  
  Houston, 2012
History of Education, Training & Support in NC

- **Education**
  - 3 DHH teacher preparation programs
  - “Comprehensive”

- **UNC-Carolina Summer Institute in Listening and Spoken Language**
  - >300 professionals in 17 years
  - one week intensive

- **Cross agency collaboration since 2007**
  - BEGINNINGS
  - Department of Public Instruction
  - UNC Ear and Hearing Center/CASTLE
  - FREE for in-state professionals
Statewide System of Support

- NC Department of Public Instruction
  » Exceptional Children Division
  » 4 state-level consultants for DHH
    » 2 LSLS Cert. AVT

- Outreach, Training, and Technical Assistance

- On-site observations

- Assist LEAs with programming for all students with hearing loss
Reaching Educators to Access best practices for Children with Hearing loss

Our mission:

• Provide quality listening and spoken language services
• Empower Parents as primary teachers
• Train and coach professionals in the development of listening and spoken language
Better Together

• Improving capacity and confidence of professionals to serve students with hearing loss.

• Improved outcomes for students as an extension of coaching.
Questionnaire for Professionals Who Participated in Coaching

• 16 teachers/therapists
  » structured coaching/mentoring
  » minimum of 6 months
  » self-reflection before and during coaching

• 30 total questions
  » 24 - rate level of confidence with skills
    • (1) not at all confident
    • (5) very confident
    • (3) is neutral rating
  » 6 - agree/disagree
Impact of Coaching

Areas demonstrating the least impact

- Troubleshooting Devices
- Ling 6 Sound
- Understanding Lang and Vocabulary
- Incorporating Academic Content

Before: 3.5, 4.1, 3.25, 2.5
During: 4.43, 4.8, 4.5, 3.8
Impact of Coaching

Areas Demonstrating Most Impact of Coaching

- Using a Variety of Auditory Strategies: 4.3125 (Before), 2.3 (During)
- Incorporating Academic Content: 3.9 (Before), 2.6 (During)
- Monitoring Progress: 4.5 (Before), 2.7 (During)
- Identifying Goals: 4.4374 (Before), 2.6 (During)
- Planning effective lessons: 4.25 (Before), 2.75 (During)
- Knowing I was Providing Catch Up: 4.2 (Before), 2.3 (During)
Impact of Coaching

• Summary
  • Subjective
  • May not reflect all knowledge gained

• Impact
  • Positive professional growth
  • Positive professional experience
  • Positive student growth
Direct Impact of Coaching on Student Progress

Case 1

![Bar Chart]

STANDARD SCORES (100 + 15 is average)

YEAR

2008  2012  2013

Expressive Language  Receptive Language  Column1

50  42  66

50  48  76
Direct Impact of Coaching on Student Progress
Case 2

Progress Over Time

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Expressive Language</th>
<th>Receptive Language</th>
<th>Core Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011-12</td>
<td>61</td>
<td>82</td>
<td>62</td>
</tr>
<tr>
<td>2012-13</td>
<td>62</td>
<td>96</td>
<td>73</td>
</tr>
<tr>
<td>2013-14</td>
<td>85</td>
<td>108</td>
<td>91</td>
</tr>
</tbody>
</table>

Standard Scores 100 + 15 is average
“I now know so much more and I am confident that I am providing my students who are deaf and hard of hearing with the most effective services I can, and their language scores prove it.”

Caitlin, Speech-Language Pathologist
Summary

• Medical and educational collaboration
  » In-service professional development
    • Different formats
    • Affordable
  » Regular, structured coaching
    • Tele-coaching
    • Onsite
  » Pre-service professional preparation


References


• Tobey, EA, Thal, D, Niparko JK, Eisenberg, LS, Quittner, AL; Wang, NY; CDaCI Investigational Team (2013). Influence of implantation age on school-age language performance in pediatric cochlear implant users. *Int J Audiol*. Apr;52(4):219-29

• [http://ses.uncg.edu/pid/home/about-us/](http://ses.uncg.edu/pid/home/about-us/)
• [http://edu.lr.edu/graduate-program](http://edu.lr.edu/graduate-program)
• [http://ncbegin.org/](http://ncbegin.org/)