

What Now?

A Multi-Disciplinary Approach to Complexed Cases

Alex Mestres MEd.

Julie Gardner MAEd.

Welcome and Introductions



Alex Mestres
MSEd

- Deaf and Hard of Hearing Specialist at various charter schools across the state.
- Educational Specialist at the University of Miami Children's Hearing Program.
- No financial disclosures.

Now how about you?
TODs, SLPs, Parents,
Interventionists, etc...



Julie Gardner
MAEd

- Educational Specialist with the Kennedy Krieger Institute
- Specializes in working with children with brain injury, concussions, chronic pain and CoVid19 rehabilitation.
- No financial disclosures.

Deaf Plus...

What does it mean?

- Children or persons who are deaf or hard of hearing in addition to other conditions that affect them medically, physically, emotionally, educationally or socially.



How many children does this actually impact?

Gallaudet Research Institute, 2005; Guardino, 2008; Laurent Clerc National Deaf Education Center, 2010

Research is inconclusive:
25%-50% of the
D/HH population

Deaf Plus

What does that include?

- Visual Impairment/ Deaf-blindness
- Developmental/cognitive/intellectual delay
- Orthopedic/physical impairment
- Specific learning disability
- Autism Spectrum Disorder
- Syndrome Related
- Emotional/behavioral
- Traumatic brain injury
- Other health impairments

Disability	Rate for children who are D/HH
No Disability	60%
Cognitive (intellectual disability)	8.3%
Cerebral Palsy	0.3%
Visual Impairment	5.5%
ADHD	5.4%
Specific Learning Disability	8%
Autism Spectrum Disorder	7%

Gallaudet Research Institute. (2011). Regional and National Summary Report of Data from the 2009-2010 Annual Survey of Deaf and Hard of Hearing Children and Youth.

Deaf Plus

What do we do?

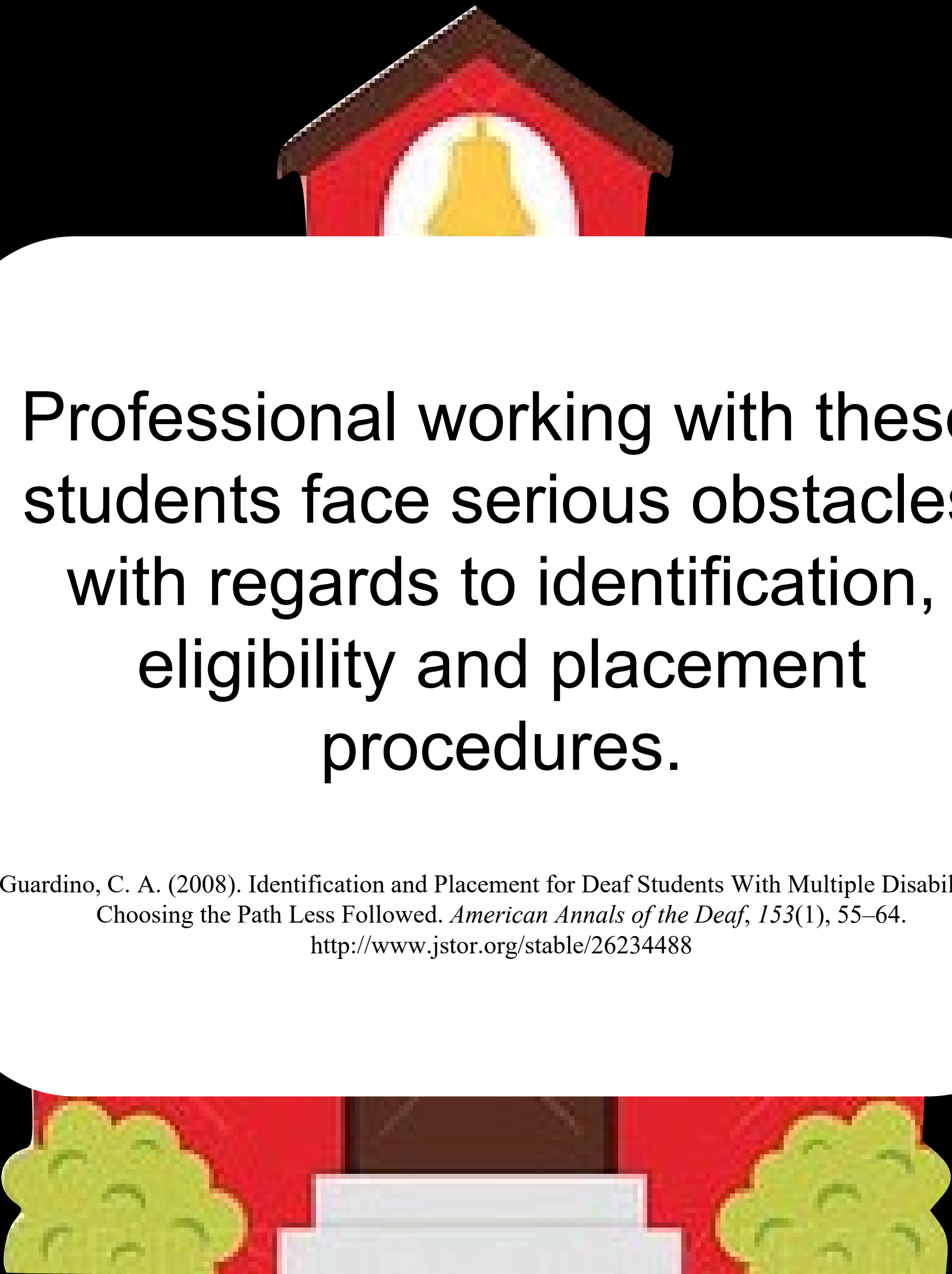
- Deaf students with multiple disabilities have the educational needs of deaf students **plus the educational needs associated with one or more additional disabilities**. In addition, the interaction of the disabilities creates educational needs that are not characteristic of any single disability.



- Jones, T. & Jones, J. (2003). Educating Young Children with Multiple Disabilities. In B. Bodner-Johnson & M. Sass-Lehrer (Eds.), *The Young Deaf or Hard of Hearing Child* (pp.297 – 329). Baltimore: Brookes Publishing Co.

The Challenges

- Program placements
- Qualified personnel
- Diagnostic delays/appropriate measures
- Service Coordination
- Identification/eligibility
- Communication



Professional working with these students face serious obstacles with regards to identification, eligibility and placement procedures.

Guardino, C. A. (2008). Identification and Placement for Deaf Students With Multiple Disabilities: Choosing the Path Less Followed. *American Annals of the Deaf*, 153(1), 55–64.
<http://www.jstor.org/stable/26234488>

So what is the answer?

Many experts agree...

- Service providers should implement and take advantage of the transdisciplinary model. The transdisciplinary model, however is more applicable because of its emphasis on the **sharing of skills and information across disciplines and on collaboration** among service providers in general.

Ewing, K. M., & Jones, T. W. (2003). An Educational Rationale for Deaf Students With Multiple Disabilities. *American Annals of the Deaf*, 148(3), 267–271.

- Given the range and intensity of needs, including communication, **it is imperative that teachers collaboratively team with professionals across disciplines** if individual needs, including communication and literacy needs, resulting from the hearing loss as well as accompanying disabilities are to be met in any of the settings along the placement continuum.

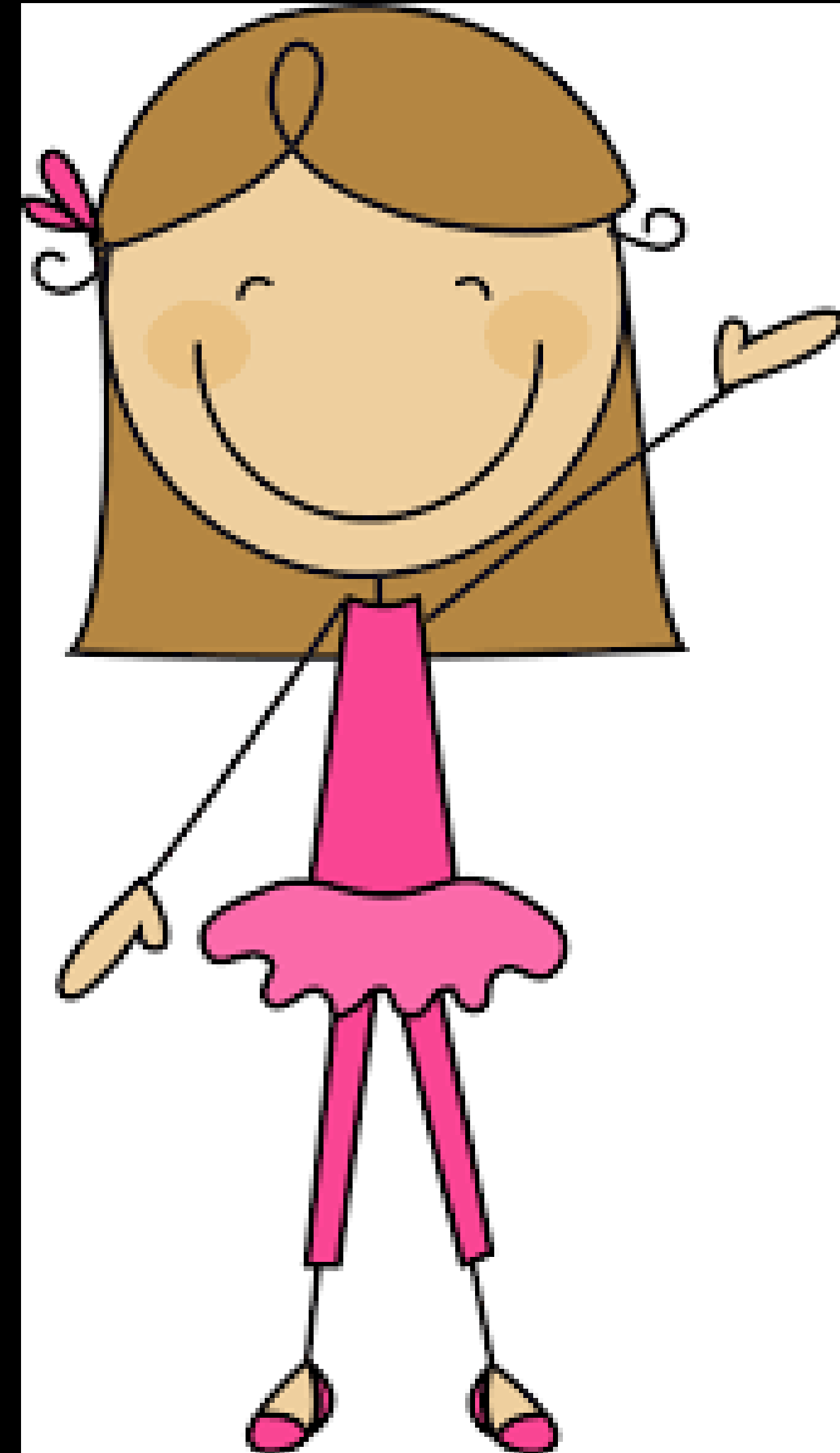
Nelson, C., & Bruce, S. M. (2019). Children Who Are Deaf/Hard of Hearing with Disabilities: Paths to Language and Literacy. *Education Sciences*, 9(2), 134.

- Although professionals in the field of deaf education can receive training on educational strategies, **reaching out to experts in broader fields** (such as specific learning disabilities, autism, technology experts, etc.), may allow them to better identify other educational strategies that can be adapted or used for children who are deaf or HoH with learning needs.

Wiley, S. (2012). Children who are deaf or hard of hearing with additional learning needs. *Perspectives on Hearing and Hearing Disorders in Childhood*, 22(2), 57-67

Meet Nina

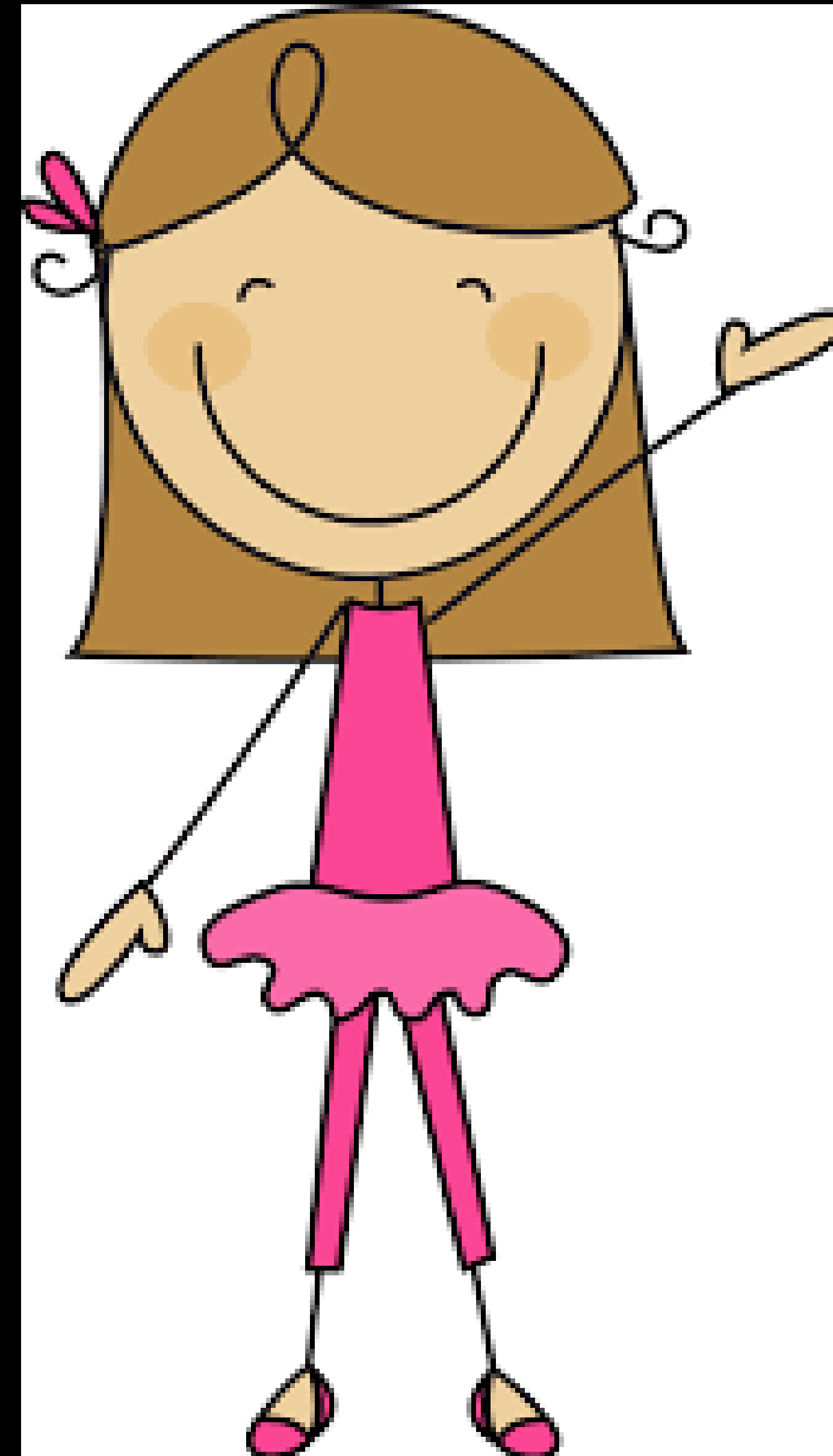
- 5 year old girl.
- Bilateral sensorineural severe to profound hearing loss.
- Progressive loss starting between 1.5 and 2 years old.
- Received one CI at age 3.
- HAT at school and at home.
- Consistent AVT therapy from the time of implementation. Mapping also completed regularly.
- Self-contained auditory/oral kindergarten class (6 children).
- IEP eligibility included: D/HH and LI.
- Genetic testing showed presence of Connexin 26 but no other genetic anomalies.



School

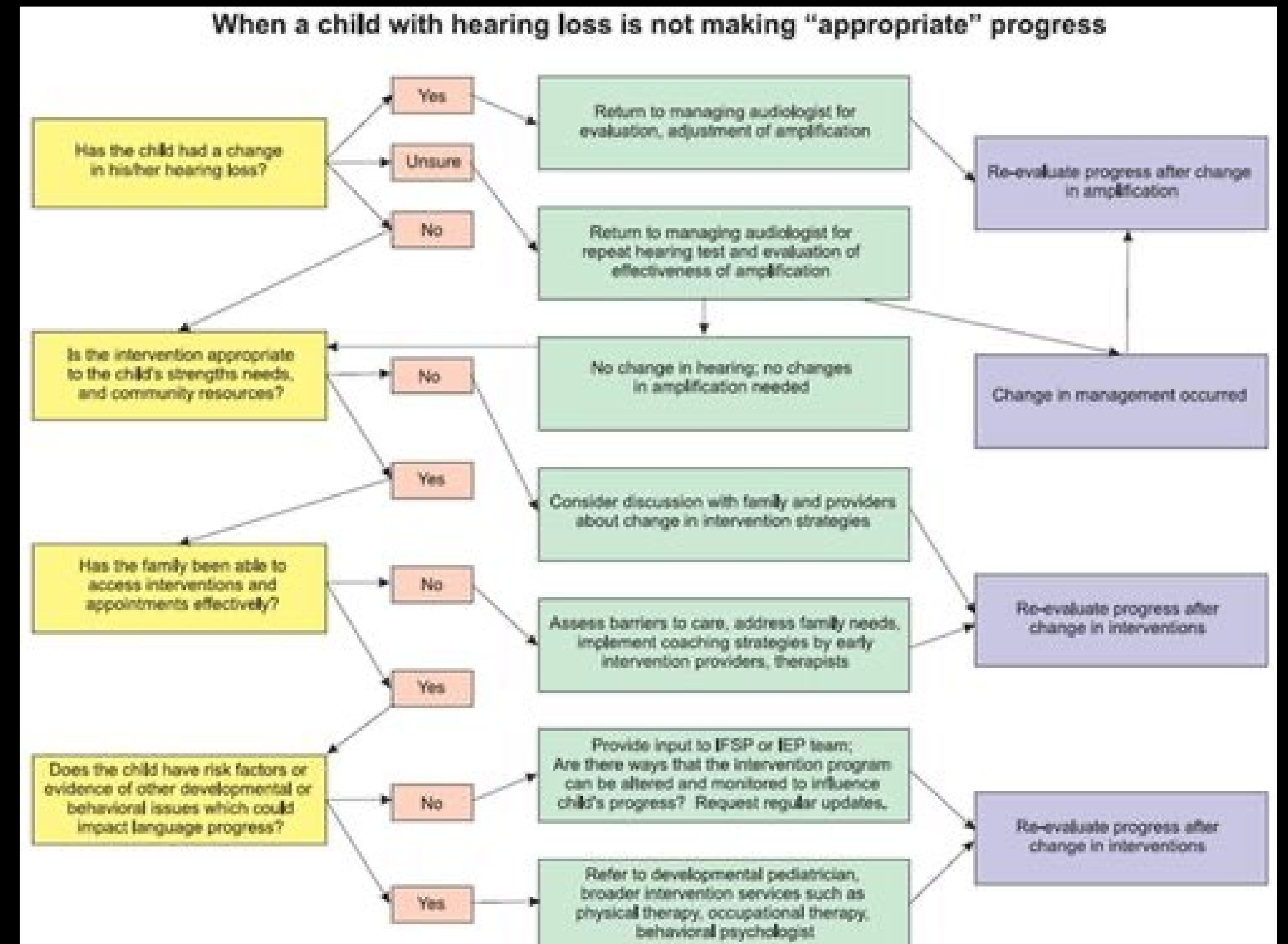
What happened?

- “Atypical” behaviors including: random laughing, odd outbursts, anxiety, and some aggression (behaviors were also reported by AVT therapist).
- Progress had gaps, skills acquisition was not consistent, retention was also inconsistent.
- Social issues including inappropriate interactions with peers unresolved with redirection or intervention.
- Parent and school notes that there is significant regression of behavior at times.
- School attempted to address issues: increased academic intervention and behavior intervention plan.



Questions

- Has the hearing loss change?
- Is the intervention appropriate to the child's strengths, needs and community?
- Has the family been able to access interventions and appointments effectively?
- Does the child have other risks factors that would impact language or cognitive acquisition?



• Wiley, S. (2012). Children who are deaf or hard of hearing with additional learning needs. *Perspectives on Hearing and Hearing Disorders in Childhood*, 22(2), 57-67

The Clinic

University of Miami Children's Hearing Program

Team includes: Educator, psychologists, and audiologists

- Ask to do a psycho-educational evaluation.
- Findings:
 - FSIQ in low average range along with NVI in low average range.
 - Cognitive profile: issues inhibition/self monitoring program solving.
 - Socially found to have is maintaining appropriate
 - Adaptive scores show concerns in the areas of communication and socialization (ASD ruled out).
 - Behavioral inventories showed concerns in the areas of atypicality, withdrawal, social skills, attention skills and risk for social disorders.
- **Diagnosis: Unspecified Neurological Disorder**

The Question

How to develop an educational plan that addresses an unspecified neurological disorder and hearing loss?



The Other Clinic

Kennedy Krieger Institute at John Hopkins

The team: educators and neuropsychologists

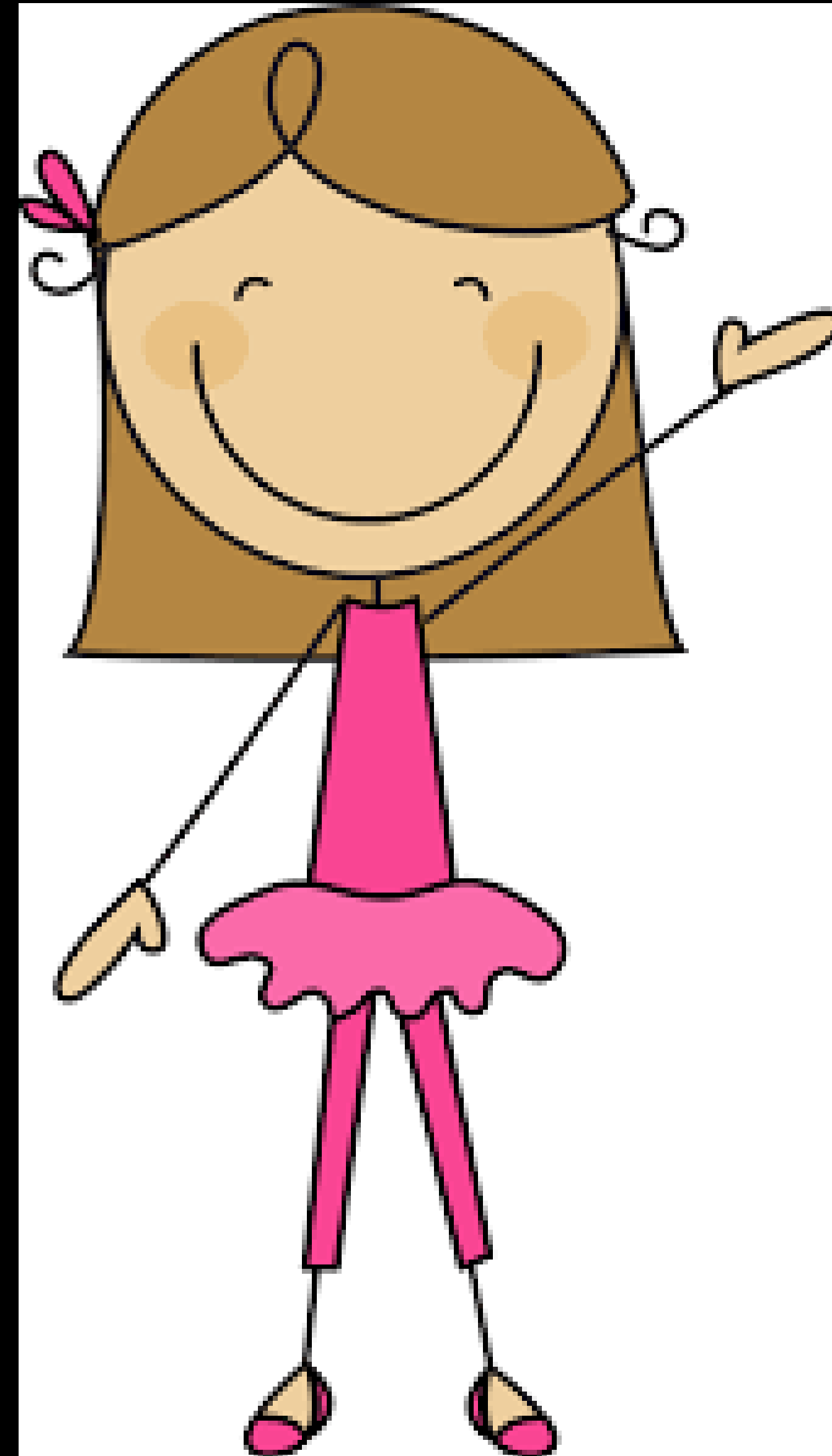
- Requested all the patients IEPs, evaluations, and medical history.
- Findings:
 - Revealed a medical report that indicated the patient had developed lesions on the brain starting approximately age 2. The lesions were reported in areas that would directly impact executive functioning, social development/functioning, and problem-solving.



Creating a Plan

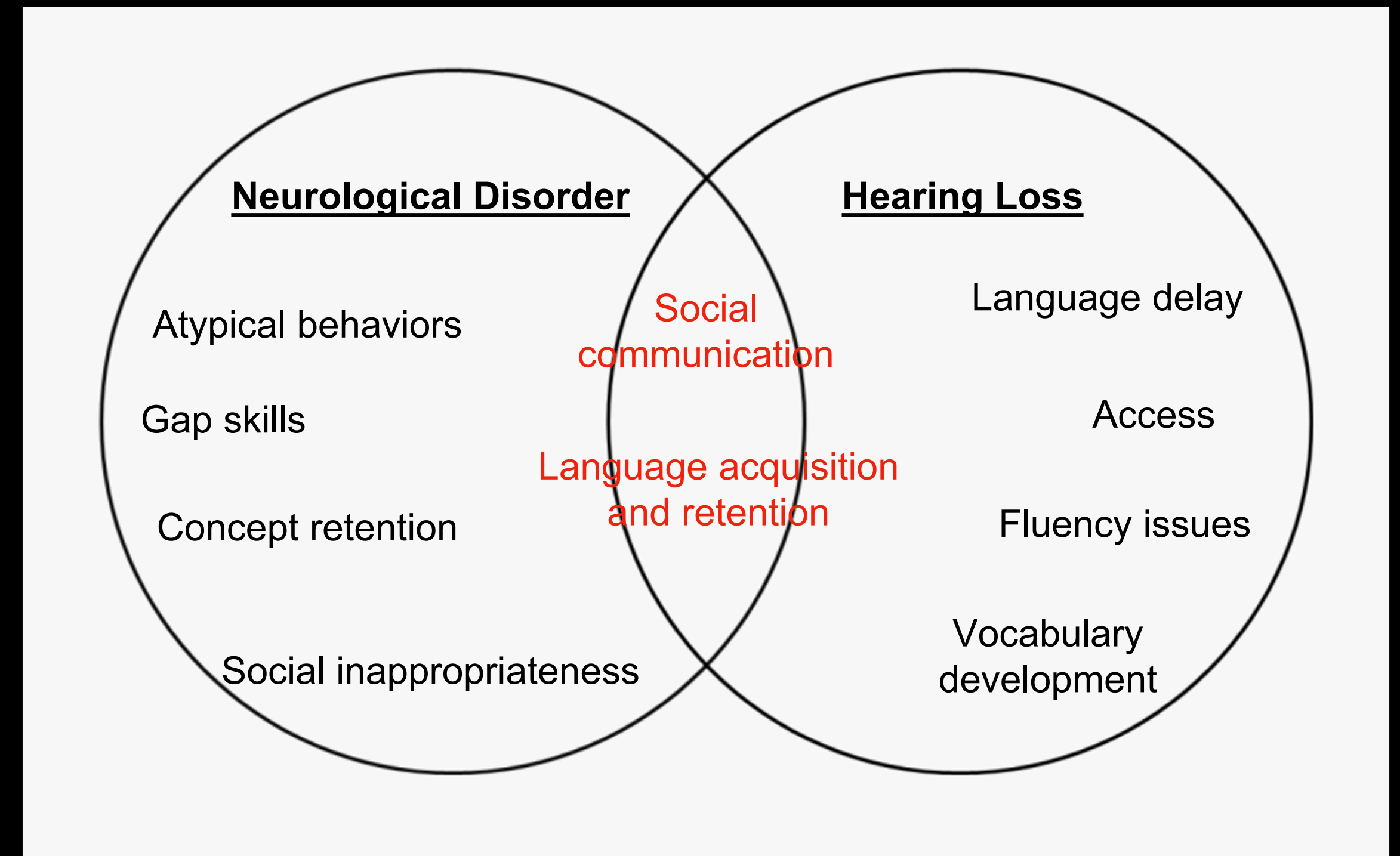
Changes to the IEP

- Additional eligibility of: Other Health Impaired to address neurodiversity.
- Training for staff on neurodiverse profile.
- Academic intervener/paraprofessional.
- Behavioral supports including: positive corrective feedback, differential attention, and token economy. Adult and peer models for behavior.
- Cognitive supports including: explicit and systematic instruction, real-life context for problems, limiting instruction for processing and cognitive load, scaffold strategy (I do, we do, you do), predictive tasks, visual supports, and independent choices (limited). Front-load learning and vocabulary in small increments, narrate knowledge and activities,
- Highly structured classroom environment. Cognitive based behavioral therapy as well as social counseling in school environment.



Keys to success...

- Comprehensive file review including medical records.
- Understanding of the potential impact of the lesions on the brain.
- Understanding the impact of the hearing loss.
- Viewing the intersecting points between the neurological disorder and hearing loss.



Moving forward...

William

- 4 year old boy.
- CMV with limited functioning on the right side of the brain.
- Bi-lateral profound hearing loss with cochlear implants at age 1.
- Auditory/Oral Classroom with challenges in pre-math skills, motor skills and pre-writing (hemi-negilgent)
- What we did:
 - Added: Other Health Impaired to IEP.
 - OT/PT evaluation.
 - Cognitive profile with BDI and LAP-D
 - Training for staff on impact of CMV on the brain.



Collaboration is key...

- Population is challenging.
- Not enough research or understanding of the prevalence.
- Need to work across disciplines.
- Work together to develop more comprehensive evaluation measures and clarify current measures.



Resources

Resource and research to support moving forward...

- Wiley, S. (2012). Children who are deaf or hard of hearing with additional learning needs. *Perspectives on Hearing and Hearing Disorders in Childhood*, 22(2), 57-67.
- Jones, T. & Jones, J. (2003). Educating Young Children with Multiple Disabilities. In B. Bodner-Johnson & M. Sass-Lehrer (Eds.), *The Young Deaf or Hard of Hearing Child* (pp.297 – 329). Baltimore: Brookes Publishing Co.
- Ewing, K. M., & Jones, T. W. (2003). An Educational Rationale for Deaf Students With Multiple Disabilities. *American Annals of the Deaf*, 148(3), 267–271.
- Ewing, K. M., & Jones, T. W. (2003). An Educational Rationale for Deaf Students With Multiple Disabilities. *American Annals of the Deaf*, 148(3), 267–271.
- <https://earlystart.csdeagles.net/home/about-dhh-early-start/deaf-resources>



Questions?



Thank You!!

Contact Information

Alex Mestres: asm120@med.miami.edu

Julie Gardner: gardnerj@kennedykrieger.org