Dual diagnosis and dual language lea
children with Autism Spectrum Disorde

EHDI Annual Meeting 2020

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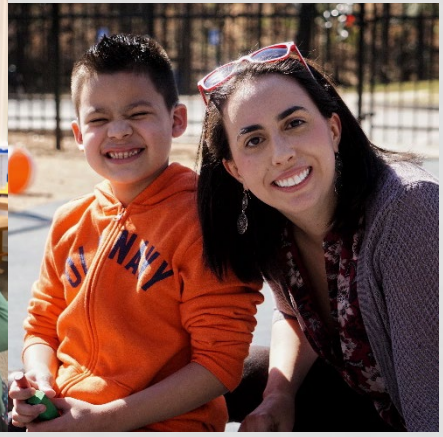
ABOUT ME

- Grew up in South Florida
- Family background?
- Experience with Spanish
- CF position as bilingual speech-language pathologist
- Initial misconceptions
- Now biggest passion



MY FAMILIES

- 100+ Spanish-speaking families over 5+ years
- Mexico, Guatemala, El Salvador, Cuba, Dominican Republic, Venezuela, Colombia, Ecuador, Peru, Panama, Honduras

LEARNER OUTCOMES

- List red flags for a diagnosis of ASD in children with cochlear implants.
- Describe the impact of dual language learning in children with cochlear implants and ASD.
- Discuss the myths surrounding bilingualism in children who have a dual diagnosis.

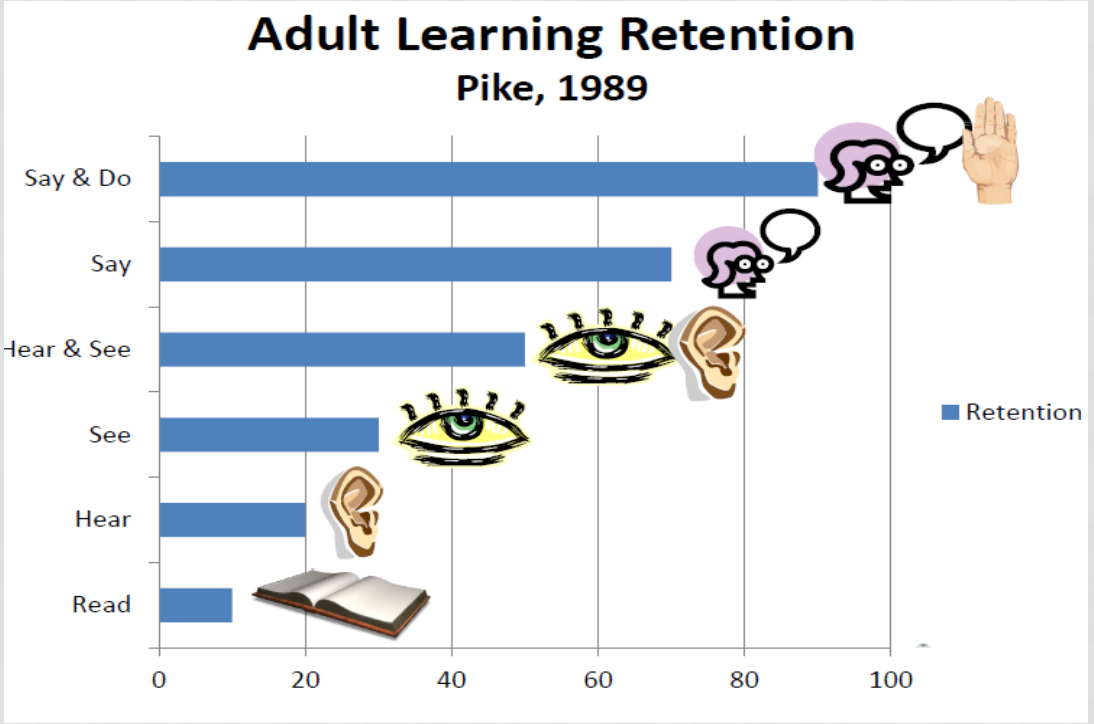
WHY PROVIDE INTERVENTION IN THE HOME LANGUAGE?

- Evidence indicates that children with hearing loss *can* learn multiple spoken languages
- Learning the language of the home does not impede acquisition of the majority language but rather, can accelerate it

  (Bunta & Douglas, 2013)

INCREASED HOME CARRYOVER

- According to adult learning principles, when parents are able to "say and do" the intervention, they demonstrate improved retention



Graphic from Caraway (2013)

PARENTS MUST BE THE PRIMARY LANGUAGE TEACHERS FOR THEIR CHILD

We can't teach them every word they need to know!

- 1 yr: 1-10 exp words
- 18 mo: 50 exp words
- 2 yrs: 300 exp words
- 3 yrs: 900-1000 exp words
- 4 yrs: 1500 exp words
- 5 yrs: 2500 exp words

(Heavner & Vernelson, 2013)

- Due to the degraded acoustic signal/reduced bandwidth, children with hearing loss need **three times the exposure** to learn new words

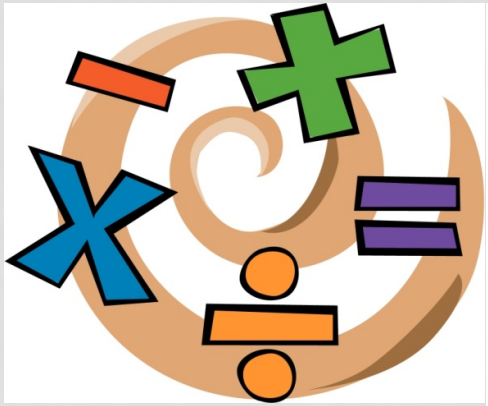
(Pittman, 2008)

EARLY INTERVENTION NEEDS PARENTS

- **Family-centered:** Caregivers as child's **primary** teacher
- ***WE need*** parents/caregivers for this approach to be successful– importance of home language

WHY MAXIMIZE FAMILY ENGAGEMENT? SIMPLE MATH.

- Average 2 year old: **4,032** waking hours per year
- We see families for about **42-45** hours a year (Caraway & Horvath, 2012)



"If you give a man a fish, he eats for a day. If you teach a man to fish, he eats for a lifetime".

SOME BILINGUALISM MYTHS

- Child will be delayed
- Child will get confused
- Child is less intelligent
- Reducing to 1 language will improve chance of success

Brenda K. Gorman, PH.D

IMPACT OF REDUCING A CHILD TO 1 LANGUAGE:

- Negative social-emotional impact
- Impact on parent-child relationship
- Exposed to simpler linguistic model
- Parents feel their language isn't valued

Brenda K. Gorman, Ph.D

CAN CHILDREN WITH DISABILITIES AND LANGUAGE DELAYS BE BILINGUAL?

- Common misperception: when a child has a communication disorder it would be better to reduce to one language
- BUT what does research show?

Brenda K. Gorman, Ph.D

"One language is hard, and two languages are hard for children with speech and language impairments… but not necessarily harder"

Kathryn Kohnert, PhD, CCC-SLP

"Bilingualism doesn't cause a language disorder nor exacerbate it"

Kathryn Kohnert, PhD, CCC-SLP

CHALLENGES IN SUPPORTING 2 LANGUAGES?

"Easier said than done"

- Institutional & individual opposition to the idea of bilingualism
- Limited bilingual professionals—clinician/client language mismatch
- Fewer treatment materials/resources
- Limited evidence base in terms of HOW to support to languages

Kathryn Kohnert, PhD, CCC-SLP

"Parents should communicate with their child in the language they speak best"

Brenda K. Gorman, Ph.D

BILINGUALISM IN CWHL

Evidence indicates that children with hearing loss *can* learn multiple spoken languages

Learning the language of the home does not impede acquisition of the majority language but rather, can accelerate it (Bunta & Douglas, 2013)

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BUNTA ET AL., 2016

- Bilingual children *who received dual language support* outperformed their bilingual peers who received English only support

Conclusions: Encouraging home language use and providing treatment support in the first language may help rather than hinder English development AND the home language. **Dual language support yields better overall and expressive English language outcomes** than English only support.

BILINGUALISM IN CHILDREN WITH ASD

Research has found no differences in vocabulary, communication skills and age of early language milestones when comparing children with autism exposed to either one or two languages.

(Hambly & Fombonne, 2014; Valicenti-McDermott et al., 2013)

BILINGUALISM WITH DUAL DIAGNOSIS?

- Not much research

CASE STUDY 1: CHRISTOPHER

Child profile: 3.5 years old, ANSD, ASD, ADHD, premature

Parent profile: Family income <20K, limited maternal education level, monolingual Spanish-speaker

Prior Intervention: Speech tx in English 3 words expressively at 3.5 years

WHAT WAS THE "MAGIC"?

- 6 months later: 150 words, 3 word combinations.
- Assessments showed over 1 year of progress in 6 months

ASD CONCERNS

- Increasing concerns after a few months of working with Christopher
- Hyperfixation on numbers and letters
- Removing his processors
- Hitting and yelling
- Shutting his eyes and shaking/tapping
- Diagnosed at age 4 with "moderate to severe autism"
  - Started ABA & SI therapy
  - Progress improved even more rapidly

NEVER UNDERESTIMATE PARENTS

"Es mi deber como madre preparar a mi hijo para el futuro. Tengo que aprovechar el tiempo al máximo porque ése, cuando se pierde, no vuelve. Hacer la terapia, para mí, es tan importante como darle de comer, porque sé que esto alimenta su vocabulario, su expresión, y su independencia. Sé que tal vez no soy la mejor madre, pero creo que soy la que él necesita. Lo amo con el alma."

"It is my duty as a mother to prepare my child for the future. I have to take maximum advantage of this time because when you lose it, it doesn't come back. For me, doing therapy is as important as giving him food to eat because it nourishes his vocabulary, his expression, and his independence. I may not be the best mother, but I believe I am the one that he needs. I love him with my soul."

HEAR FROM CHRISTOPHER'S MOM

WHERE IS CHRISTOPHER NOW?

3rd grade
Partly mainstreamed; pull out with special ed teacher trained in ASD
Hearing loss is not what's impacting language/academics
Bilingual in Spanish and English– still some language delays (especially pragmatic language) but verbal and loves talking

CASE STUDY 2: JUSTIN

- Met Justin and his family at 24 mos
  - Bilateral profound hearing loss
  - Implanted bilaterally at 15 mos
  - In early intervention but in English– hadn't made much progress.
  - After 6 mos of AV therapy in Spanish Justin went from being non-verbal to using almost 100 words in Spanish spontaneously.

CONCERNS FOR ASD:

- Difficulty with transitions
- Delayed use of natural gestures to communicate
- Frequent vocalizations/screeching that appear self-stimulatory in nature
- Removing his implants and having difficulty putting them back on
- Perseveration on the same word during inappropriate contexts.
- Hyper-fixation on letters/numbers, parts of object, the ABC song.
- Play: tends to not appropriately engage in play spontaneously. He prefers to examine objects.

DIFFICULTLY IN CLASSROOM

- Pragmatic/play difficulties more apparent in a group setting.
- Difficulty in toddler class at a local oral school
  - Required an extra teacher to help him with transitions and attention, as well as assistance to decrease perseveration and constant vocal stimulation. Appeared overwhelmed by the amount of auditory input and classroom expectations.
- It was also shared that Justin's fixation on symbols (letters/numbers) often prevented him from joining group activities

NOT ALL THE "RED FLAGS"

- Does point, responds to sound appropriately, demonstrates joint attention, follows a point, demonstrates decent eye contact, demonstrates interest in people)

ASD DIAGNOSIS

- At 2.5 year of age, diagnosed with “mild to moderate” ASD
- Starting receiving ABA and OT

JUSTIN NOW

- Age: 3.5
- Spanish language within normal limits on standardized testing; still pragmatic language difficulties
- Transitioning to half mainstream preschool next year; half time in special education classroom.
- Transitioning out of ABA
- Still has some difficulty with transitions; some meltdowns

CASE STUDY 3: KYLEE

- Started seeing for therapy at 4 mos of age
- Profound bilateral HL
- Baseline developmental screeners all high average skills except for communication
- Normal development until approx. 18 months
- Loss of skills from 18 to 24 mos (language scores went back to 0 mos). Cognitive, social-emotional delays. Not Retts syndrome– physical skills fine

ASD CONCERNS

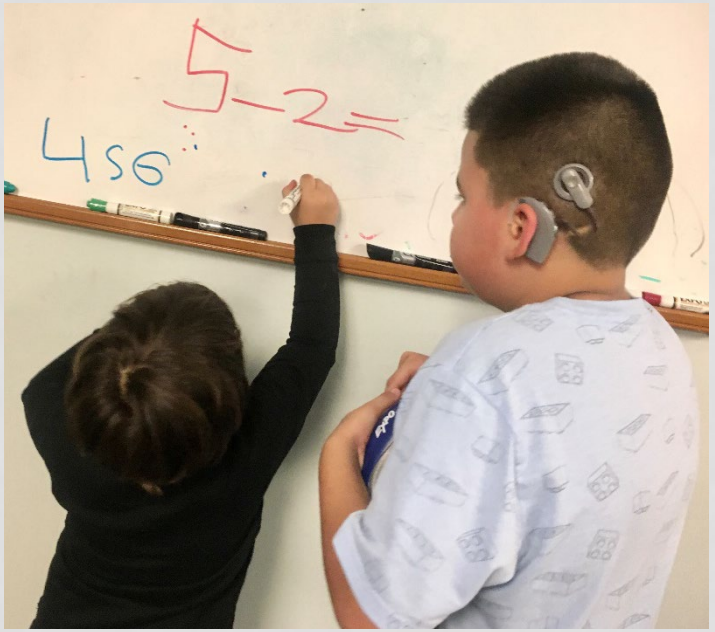
- Kylee does not appear to share enjoyment, interests, or achievements with others
- A lack of social or emotional reciprocity—
- Kylee does not enjoy/participate in games that involve a back and forth exchange with another person—such as peek-a-boo or pat-a-cake.
- Kylee demonstrates much more interest in objects than faces/people.
- Kylee does not take interest in other children. She does not play with, smile at, look at or try to vocalize to communicate with other children.

- Use of functional play but no symbolic play
- Kylee very rarely responds to her name, even with visual cues/prompting.
- Kylee often doesn't react to sound at all. Responds best to non-speech sounds (drum, bell).
  - Was not an access issue with CIs
  - Excellent detection in booth with structured setting

AUDITORY

Gracias!

ALL 3 TOGETHER



ADAPTING THERAPY

- Avoiding numbers/letters/perseveration triggers
- Easing into transitions
- Different behavior management strategies (e.g., behavior chart)
- Using ABA strategies
  - Utilizes the scientific principles of learning to change behavior, such as positive reinforcement (when a behavior is rewarded, that behavior is more likely to be repeated)

COLLABORATION

- ABA (applied behavior analysis) intervention
- Sensory integration therapy/OT
- Special education services

PROVIDE BILINGUAL CHILDREN MORE SUPPORT, NOT LESS

"Our profession is about building and enhancing language and maximizing communication potential– taking away a language conflicts with that and there is no evidence to back it up"

–Brenda K. Gorman, Ph.D

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REMEMBER

"If the child has the capacity to learn one language, then the child has the capacity to learn two languages"

–Brenda K. Gorman, Ph.D

TAKE HOME POINTS

- Children with hearing loss and ASD can be bilingual in 2 spoken languages IF the child has the capacity to learn spoken language. If he can learn 1 he can learn 2!
- Neither child started making progress in language development until intervention was provided in home language– likely due to increased carryover at home.

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THANK YOU! ¡GRACIAS!

"Tell me and I forget, teach me and I may remember, involve me and I will understand."

– Chinese Proverb