Autism Spectrum Disorder among children who are Deaf and Hard of Hearing

JFK 50th Anniversary Symposium
April 17, 2015
Deborah Mood, Ph.D.
Licensed Psychologist
Children's Hospital Colorado, Child Development Unit
Deborah.Mood@childrenscolorado.org

Hearing loss = diagnostic rule out + complex comorbidity

Past, Present, and Future

Understanding the dual diagnosis

Higher ASD Rates in D/HH children
Severities of HL & ASD dx = Mixed results
D/HH children are later to be diagnosed (esp. mild HL)
Delayed dx → delayed intervention → poorer outcomes

Prevalence of Autism based on Severity of Hearing Loss

Data is provided from the Annual Survey of Deaf and Hard of Hearing Children and Youth Conducted by the Gallaudet Research Institute: National, State, and Local Data, 2012

Age of Diagnosis for ASD and Hearing Loss

- Median 53.5 months
- Median 78 months

- Autism
- Autism
- PDD-NOS
- PDD-NOS

- Autism
- Autism
- PDD-NOS
- PDD-NOS

Diagnostic Challenges

- Lack of standardized assessment tools for D/HH
- Lack of research or agreed upon standardized practice
- Frequency of ASD may look different in a signed language
- Assessment via interpreters

“Red Flags” for a possible ASD in children who are Deaf/HH

- Atypical preverbal communication
  - Poor eye contact, lack of pointing, poor orientation for communication, poor joint attention
  - Delays in language acquisition beyond what one could expect based on hearing loss/etiology/intervention history

- Atypical language features
  - echolalia, perseveration errors, persistent gesture use despite instruction in formal sign and use of formal sign by others in the child’s environment (distinct from home signs)

- Social difficulties
  - Failure to initiate/respond to peers when communication taken into consideration, failure to recognize deaf cultural norms, etc.

- Repetitive behaviors/restricted interests
  - Atypical in absence of comorbid ID
  - May occur briefly while communication is being established

Language features of ASD in ASL

- Features similar to oral language but may present differently in visual language
  - Palm reversals (Hart, 2014)
  - Pronoun avoidance vs. pronoun reversal (Hart, 2014)
  - Echolalia
  - Persistent use of individual’s own gestures rather than formally instructed/used sign vs. neologisms (e.g. “red” vs. “ketchup”)
  - Failure to use appropriate sign space
  - Mixed results regarding use of facial aspects of sign language and impact of ASD (Dennock, 2011, 2014)

Interventions for Dual Diagnosis

- Evidence of effectiveness of interventions is lacking (mostly case studies).
  - It seems reasonable to take interventions which have been successful for hearing children to modify/adapt for children who are D/HH
- Duality requires specialized intervention especially regarding communication
Communication intervention requires knowledge of both ASD and D/HH

- Multifaceted approach to language is warranted
- Language must be accessible to children who are D/HH
- Child’s means of accessing language (expressed language) may differ from most reliable means of using language (impressed language)
- Targeting core components of ASD (e.g., response preferences in or T. J. speech, ASD, not failure of C). problems with D. P. prior motor inversion, in ASD.

Supporting Families

- Providers who recognize red flags for ASD should not delay raising concerns with families
- Families may not understand what is/is not attributable to hearing loss
- Struggle to locate qualified providers/interventions/supports exacerbated by dual diagnosis
- Educational placement/programming challenges
- Strong need to connect with other families with children with similar strengths/needs (Hands and Voices)

References/Resources