

Autism and Speech: How Autism Spectrum Disorder Affects Speech and Language Development in

Young Children

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Abstract

Autism Spectrum Disorder (ASD) is a neurological and developmental disorder that can severely affect a child's social interactions, behaviors, interests, and their communication skills. The focus of this research is to highlight the connections between autism spectrum disorder and speech and language development in the early years of a child's life. There is no set standard for a therapy tactic since every child is different and requires a personalized approach, but professionals have identified key strategies to use. A review of relevant literature and reflection on personal speech therapy observations allowed for conclusions to be drawn about what are considered to be the best techniques and approaches when working with a child that is diagnosed with autism spectrum disorder.

Introduction

This research assignment will go in-depth in reviewing and analyzing literature that looks at different aspects of autism spectrum disorder. It will answer the questions of what can cause this disorder and how it can be diagnosed. What are the links between autism spectrum disorder and communication skills? How and why are these communication skills impaired? What are the best practices and interventions to help speech and language development? Personal, professional observations and literature review from database sources, like EBSCOhost, allowed for analysis on each question.

Observations

All observations took place at The Child Family Center in Millville, New Jersey

Alexander

❖ Non-verbal and sensory-driven

❖ Main goals- toleration of therapy and sustained attention one 1 activity

Brandon

❖ Minimal language- single word intelligible utterances, unintelligible longer utterances

❖ Main goals- following directions and commands, imitate language, and using spontaneous language

Carson

❖ Functional verbal language

❖ Main goals- expanding utterances, using appropriate nouns and pronouns, differentiating between singular and plural objects, and following directions

Literature Review

Etiology

- ❖ Strong evidence for genetic/biological cause (Coburn & Williams, 2020).
 - ❖ Larger brain volume, inconsistencies with cortical thickness and surface area
 - ❖ Faster development of myelination in frontal cortex, slower in temporoparietal junction
 - ❖ Myelination allows the brain to facilitate complex behaviors and cognitive functions (language)

Effects on Speech and Language

- ❖ The brain creates its own functional networks between regions to understand, process, and use speech and language (Coburn & Williams, 2020)
 - ❖ ASD brains do not make proper connections and have atypical hemispheric lateralization
- ❖ Higher risk of having an articulation or phonological speech disorders (Cleland et al., 2010)
- ❖ Impairments concerning the principles of grammar (reflexives and pronouns) (Perovic et al., 2013)

Best Practices

- ❖ Augmentative and Alternative Communication (AAC)
- ❖ Transdisciplinary approach (TA)
 - ❖ Collaborative team of teachers, service providers, parents, and the child (Weiss et al., 2020)
 - ❖ Incorporates differing perspectives and ideas when trying to problem-solve and achieve goals
- ❖ Child-Directed Interaction Training (CDIT)
 - ❖ Child leads the way during therapy
 - ❖ show fewer behavior problems, increases language, social awareness and responsiveness, and create better relationships with the people working with them (Ginn et al., 2017)

Implications

- ❖ Clinical focuses
 - ❖ Joint attention, engaging in symbolic play, imitation
- ❖ Reading comprehension levels fall as children get older
 - ❖ Trouble with inferencing and theory of mind- not able to make social-emotional connections to things outside of themselves

Future Research

- ❖ Focus on how speech therapy for children with Autism Spectrum Disorder can alter their language development
- ❖ Conduct my own study
 - ❖ Longitudinal
 - ❖ Follow children with ASD from early intervention/preschool until middle school
 - ❖ Examine yearly speech evaluations
 - ❖ Compare and contrast therapy goals, therapy strategies, and current level of functional speech and language use

Limitations and Conclusion

Limitations

- ❖ The impacts of COVID-19
 - ❖ This hindered where and how many observations took place prior to completing the project
- ❖ Access to unlimited resources
 - ❖ Not all journals and scholarly articles are free and available online for students to use
- ❖ Time
 - ❖ The project and research only took place over one semester

Conclusion

Autism Spectrum Disorder has evolved over the years to encompass a wide variety of neurodivergent disorders. Social communication deficits are a hallmark for ASD. Though two children are both diagnosed with ASD, the ways in which their speech and language are impaired can be very different. This ranges from being completely non-verbal, to having full use of speech and language. Because children can fall along a spectrum, there is no one right way to provide therapy to a child with ASD. Every child responds differently to the ways in which they are serviced. Speech-language pathologists need to be well-versed in therapy tactics due to this. More research needs to be completed in this field to better supplement previous findings and arguments. I hope to one day complete a study of my own to look further into how contrasting speech therapy activities and goals can affect a child with autism spectrum disorder.

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