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Supporting students with Autism Spectrum Disorder

ABSTRACT. When educating boys and girls with Autism Spectrum Disorders (ASD), it is vital that teachers know how to best support their students within the classroom as well as how to support their families with community activities. Knowing the definition, etiology, and causes of ASD as well as specific strategies will strengthen educational programming around the world.

KEYWORDS: education, Autism Spectrum Disorders, support, boys, girls

Introduction

There are many aspects that go into understanding how to educate boys and girls with a specific disability. This manuscript will focus on how to educate children with Autism Spectrum Disorder (ASD). Being aware of the disability definition, etiology, and characteristics is crucial in having a full understanding of what a child with ASD goes through each day. When one is diagnosed with ASD, there are several effects on their learning within the classroom, community, and workplace. Educators can use a number of instructional strategies and curricular/environmental modifications to better support students with ASD. There are strategies that can be used to support interactions between students with ASD and their typical peers. In addition, it is valuable for educators to have resources and strategies to share information with typical peers, parents, and other professionals.

Disability definition, etiology and characteristics

ASD refers to a range of conditions that include challenges with social skills, repetitive behaviors, speech, and nonverbal communication (Autism Speaks, 2017). There is not just one type of autism, but rather a wide range of variations in both challenges and strengths. ASD is a developmental disability, and individuals with autism have no physical attributes that identify their disability. Some of the behaviors associated with autism include delayed learning of language; difficulty making eye contact or holding a conversation; difficulty with executive functioning, which relates to reasoning and planning; narrow, intense interests; poor motor skills' and sensory sensitivities (Autism Society of America, 2016). Depending on where the individual with autism fits along the spectrum, they may show many of these characteristics or they may show just a few.

Currently, there is not a single cause for ASD. Although researchers do not know the exact cause of ASD, there are several theories being investigated. Due to the recent awareness of the disability around the world, researchers are investigating whether ASD is linked to heredity, genetics, and/or other medical problems. In many families, there appears to be a pattern of autism or related disabilities, further supporting the theory that the disorder has a genetic basis (Autism Society of America, 2015). On the other hand, some researchers are exploring the possibility that problems during pregnancy, environmental factors, or exposure to chemicals have any relation to ASD developing. A specific "trigger" or "cause" for ASD has not been fully identified at this time.

Early identification of ASD has been proven to make a significant difference in the cognition and social skills of boys and girls diagnosed with ASD. Many studies have shown that early diagnosis and intervention lead to a significant amount of growth in developmental milestones for children with autism. Some of the signs of ASD in early childhood include the following: lack of or delay in spoken language, repetitive language, motor mannerisms (i.e. hand-flapping and specific word repetition), little or no eye contact, lack of interest in peer relationships, lack of spontaneous or imaginative play, and persistent fixation on particular parts of objects (i.e. spinning the wheels of a toy car, instead of using them to push the toy car across the floor) (Autism Society of America, 2016).

Effects on learning within the classroom, community and workplace

Children with ASD develop at a different rate than their typically developing peers. Boys and girls with ASD struggle with attention, interaction, and communication which has an effect on their learning within the classroom, community, and workplace. Individuals with ASD do not tune in to people and their surroundings, like their typically developing peers do. For example, a child with ASD may not respond to their name right away, wave good-bye to parents when arriving at school, or smile at a peer without being told to. Having joint attention (i.e. using eye contact, gestures to communicate, and share experiences) is important in developing needed communication and language skills. Difficulty with joint attention can also make it hard for children with ASD to learn skills like taking turns, interpreting facial expressions or keeping to the topic of a conversation (Raising Children Network, 2017). These skills are all valuable in being able to learn within the classroom, community, and workplace.

ASD also affects a child's understanding of interaction with others. Children with ASD may find it hard to see things from other people's perspectives (Raising Children Network, 2017). They may have trouble understanding how others feel or what others desire. Predicting others' behavior and understanding what is affected by their own behavior is another struggle for boys and girls with ASD. Understanding other people's perspectives and knowing how to appropriately interact with others are critical social skills. Children with ASD require assistance in learning to relate to others and the development of social skills to support their interactions within school, home, and community (Autism Connect, 2017).

Communication is an area of concern for boys and girls with ASD, and can have a major effect on their ability to learn and interact within school, the community, and their workplace. Many individuals with ASD struggle in their development of a functional verbal communication system, and may never gain these skills if they are non-verbal. Children and adults with autism can have communication difficulties including the following: learning to understand non-literal language, social-conversation skills or pragmatics, formal versus informal speech, maintaining focus on others' topics, and appropriately communicating their own wants and needs (Autism Connect, 2017).

With all of this in mind, children and adults with autism have many strengths and have been proven to show immense growth in the skills needed to be successful in the classroom, community, and workplace. Specific behavioral, curricular, and environmental strategies can be used to help enhance their attention, interaction, and communication throughout all settings. Through early intervention, instructional strategies, and modifications, boys and girls with autism can learn how to be successful in their everyday lives.

Instructional strategies and curricular environmental modifications

There are several instructional strategies and curricular/environmental modifications that can be put into place to effectively support students with ASD. Educating students with autism is usually an intensive undertaking, involving a team of professionals and many hours each week of different instruction and therapies to address a student's behavioral, developmental, social and/or academic needs (Autism Speaks, 2012). Some of the strategies or modifications that can be used to help support students with autism in their learning include the following: Positive Behavior Support (PBS), Applied Behavior Analysis (ABA), Picture Exchange Communication Systems (PECS) and sensory tools.

Positive Behavior Support (PBS) involves many evidence-based practices to both increase the quality of life for a child with autism and to decrease problem behaviors that limit them in learning new skills and actively participating across all settings. Many children with autism struggle with challenging behaviors. A positive behavioral support approach emphasizes the use of a collaborative problem-solving process to develop individualized interventions that stresses prevention of problem behaviors through the provision of effective educational programming (McDonnell, Hardman & McDonnell, 2003). Educators for students with autism may use token economy systems, built in sensory breaks, positive reinforcements, child-directed activities, students' interests, social stories, peer modeling, visual scheduling, PECS, replacement skills, choice making, and more to incorporate positive behavior supports within their classroom. The rationale behind using PBS is that it involves identifying a challenging behavior, teaching appropriate alternative responses, consistently rewarding positive behaviors, decreasing the rewards for chal-

lenging behaviors, and avoiding elements that trigger challenging behaviors to help children more appropriately communicate their wants and needs and help them to continue to be successful in the classroom.

Applied Behavior Analysis (ABA) is a systematic and data-driven approach that is used to improve socially useful and appropriate behaviors by reducing behaviors that may harm or interfere with a child's learning. Through assessment and evaluation of behavior, educators can use the antecedent and the consequence of that behavior to understand its function and determine replacement behaviors that may provide the same purpose. "Many programs use the principles of ABA as a primary teaching method, or as a way of promoting positive and adaptive behavior (Autism Speaks, 2012). By focusing on positive reinforcement and rewarding students for appropriate behavior, ABA techniques can be used to shape more socially appropriate behaviors in individuals with autism or in individuals that have autism-like behaviors. Some teaching methods of ABA include the following: Discrete Trial Teaching (DTT), Naturalistic Teaching, Pivotal Response Therapy (PRT), Token Economies, and Contingent Observation.

Picture Exchange Communication Systems (PECS) allow children with little or no verbal communication to express their wants and needs through the use of pictures. By providing students with PECS within the classroom, they will be able to appropriately communicate how they feel, what they would like to work for, and what they would like to play with. When implementing the PECS system, educators teach boys and girls with to exchange a picture for an object. Eventually, the individual learns to distinguish between pictures and symbols and use these to form sentences (Autism Speaks, 2012). PECS are also a great tool in providing visual schedules and supports for students with ASD. Though PECS is based off of visual tools, positive reinforcement for verbal communication is encouraged greatly. The rationale behind PECS is that it provides students with challenging behaviors a way to communicate more effectively and appropriately across all settings.

Boys and girls (especially) with ASD may have sensory systems that are either over- or under-reactive to stimulation. Such sensory problems may be the underlying reason for such behaviors as rocking, spinning, and hand-flapping (Hatch-Rasmussen, 2017). With this type of sensory issue, it is crucial that educators provide sensory tools within the classroom environment. Sensory tools like body-socks, weighted blankets, trampolines, rocking chairs, large bouncy balls, swings, sit and spins,

play tents, and crash pads, can be used to help calm children with autism and other disabilities. The rationale is that by changing how sensations are processed by the brain, we help children with autism make better sense of the information they receive and use it to better participate in everyday tasks (Autism Speaks, 2013). When students with ASD are over- or under-stimulated, educators can use sensory tools to help the child better focus within the classroom environment.

Strategies for supporting interactions with typical peers

When working with students with ASD, it is vital to integrate strategies for supporting interactions with typical peers. Learning how to interact and communicate with typical peers is essential in students with ASD understanding others' perspectives and continuing to maintain positive relationships throughout life. The following strategies can help in supporting interactions between students with ASD and their typical peers: social stories, peer buddies, and modeling.

Social stories are short stories that are written and presented to students with ASD that describe a specific social situation, skill, experience, or concept that is relevant and appropriate in teaching a social behavior. The objective of this intervention strategy is to enhance a child's understanding of social situations and teach an appropriate behavioral response that can be practiced (Wilkinson, 2011). Social stories are designed to help a child learn how to manage their own behavior during specific social situations (i.e. how to play nicely on the playground, what to do when there is a substitute, how to walk nicely in the hallway). These stories assist students with ASD in figuring out the who, what, when, where, and why aspects of a social situation in order to allow for frequent practice in a new expected social behavior.

Using peer buddies, also sometimes known as "peer tutors," is an effective strategy in exposing students with ASD to interactions with their typical peers. This strategy aids in developing important social skills and a number of promising studies have found that using typical peer models can increase the social and communication skills of children with ASD (Locke, Fuller, & Kasari, 2012). Children with ASD show significant progress in targeted social objectives like initiating interactions, responding appropriately to peers and adults, maintaining eye-contact, reading non-verbal cues, and understanding others' perspectives through

the use of peer buddies. In addition, there are benefits for the typical peer as well. In the past, there have been concerns that assigning peer buddies may limit the typical peer, but research has actually shown that typical peers can be socially connected to children with ASD, as well as other classmates, and maintain a strong and positive role within the classroom (Locke, Fuller & Kasari, 2012).

As an educator, one has the responsibility to model appropriate social behaviors for their students with ASD. Modeling appropriate behavior has a major effect on how students with ASD will interact with their typical peers. When modeling, teachers should not only show students with ASD a specific skill, but they should also describe each step (i.e. "Look I have nice hands when talking to my friends"). This provides students with both a visual and verbal example of what they will be expected to do in social situations (University of Louisville, 2017). Consistently modeling expected social skills can be done all throughout the school day, and children with ASD will pick up on appropriate social interactions through imitation.

Resources and strategies for sharing information with typical peers

Knowing how to share information about students with ASD with typical peers can be extremely difficult. Having resources and strategies available can help in successfully teaching typical peers about boys and girls with ASD. At times, it may be necessary to seek advice from resources and implement strategies to help typical students better understand their peers with autism. The Kids Helping Kids Manual, Autism Speaks School Community Tool Kit, Teacher Tube Video- Autism Awareness for Typical Peers/Classmates, and the use of group-oriented contingency can guide an educator in sharing information with typical peers.

The *Kids helping kids manual* by Pierce & Schreibman is a useful resource in teaching typical children to enhance the play and social skills of their friends with ASD and other disabilities. This resource helps educators teach typical peers about how to play and interact with children with ASD through the use of simple instructions, child's choice, modeling social interactions, and using encouraging language. Also, it identifies some of the decisions that need to be considered in ensuring the success of peer interactions. This includes determining the child's readiness, selecting peer trainers, choosing a location for training, selecting appro-

priate toys, and deciding treatment frequency and duration (Pierce & Schreibman, 2007). Overall, this is a great resource in giving educators a guide for sharing information and teaching typical peers how to interact with their friends with ASD.

Another resource that will give educators pointers on how to share information with typical peers is the *Autism Speaks School Community Tool Kit*. The purpose of this kit is to provide helpful information about students with ASD as well as to provide tools and strategies to achieve positive interactions and increase learning for all members of the school community (Autism Speaks, 2012). The tool kit gives educators valuable information for sharing with general education and administrative staff as well as classmates who interact with students with ASD. Preparing a positive school community is crucial, and this resource provides support in helping typical students to get to know their peers with ASD as a person first.

A very helpful strategy for sharing information with typical peers is introducing concepts through videos. The Teacher Tube video called *Autism awareness for typical peers/classmate*, can be a fun and interactive way to help typical students understand their peers with autism. In this video, children watch a cartoon child with ASD share how they really feel inside and their desire to make friends. It introduces typical students to the fact that, though students with ASD have different types of challenges, they are still a person first.

A strategy that can be used to share information with an entire classroom of typical children is group-oriented contingency. Unlike a buddy or tutor system, this strategy involves training an entire classroom of children on some social skill behaviors and techniques in hopes of promoting supportive behaviors among all of the students in a classroom with one or more children with ASD (Merrill, 2008). This strategy is helpful in teaching typical peers about children with ASD by encouraging social growth through providing expectations, simple examples, and positive reinforcement.

Resources and strategies for sharing information with parents and other professionals

Educators for students with ASD are frequently required to share helpful information with parents of children with ASD and other professionals that work with these students. There are resources and stra-

tegies available to help parents and other professionals gain support and understanding. The following resources and strategies are available for educators to share information with parents and other professionals: Autism Speaks—Support Groups, National Autism Center website, Video on *Early signs of autism*, and the article, *bridging the gap: teacher-parent partnerships for students with autism spectrum disorder*.

Often times, parents struggle greatly from feeling alone or unsupported in their journey on raising a child with ASD. The Autism Speaks website provides a link to support groups for parents to communicate with one another both online and in parent-support meetings. On the Autism Speaks website, parents can search for support groups within their area. Teachers for students with ASD can share this amazing resource with parents. By communicating with others going through the same struggles, parents can build connections and get the support they need from individuals that truly understand their perspective.

The National Autism Center website provides resources for families, educators, and other practitioners. As a teacher for children with autism, this website can be recommended to others

in order to provide reliable information on how to educate and raise students with ASD. Families can find comfort in dealing with new challenges through the National Autism Center website. Educators can learn new strategies in how to teach and share information about their students with autism, and practitioners can find support through the site making information and resources readily available. The National Autism Center website also has links to services, a donation center, a bookstore, and a list of the national standards on educating students with ASD.

It can also be helpful to share information with parents and other professionals through videos. *Early signs of autism* on parents.com is a video that shares what signs of ASD to look for in young children. The video shows examples through watching children with and without ASD interact with adults and their typical peers. This video features three children who show early signs of ASD playing with toys as well as interacting and communicating with others. It compares the footage on each of these children to that of typical children in the same situations (Kennedy Krieger Institute, 2013). This resource can be very supportive in teaching parents and other professionals how to look for signs of early ASD.

The article, *Bridging the gap: teacher-parent partnerships for students with autism spectrum disorder*, discusses strategies in ways to build

a healthy and successful partnership with parents of children with ASD. The article shares a story from a teacher's perspective and talks about ways in which they can prepare themselves for the demands of meeting the needs of both their students and the children's families. Strategies are given to increase parent-teacher communication and parent involvement. This resource provides educators with a strong basis on which to build better teacher-parent partnerships, which ultimately will improve the education of their students with ASD.

Conclusion

It is critical that teachers take the time to understand the aspects that go into educating boys and girls with a specific disability. Children with ASD are unique in their learning process. It is important to be aware of the disability definition, etiology, and characteristics, along with how ASD affects learning in the classroom, community, and workplace. Using strategies to support interactions with typical peers is also key in successfully including children with ASD in the general education classroom. Having resources and strategies available to share information with typical peers, parents, and other professionals is crucial in providing a positive environment across all setting for students with ASD.

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