



Impacts of autism spectrum disorder on child's learning

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Abstract

The paper discussed the impacts of autism spectrum disorder on child's learning. Autism spectrum disorder is characterized majorly by deficits in social interaction and communication and by abnormalities behaviors and activities. It involves persistent challenges in social interactions, speech and non-verbal communication, and restricted or repetitive behavior. The paper highlighted the causes of autism spectrum disorder as genetic mutations, fragile X syndrome and other genetic disorders, having a sibling with autism spectrum disorder, very low birth weight, fetal exposure to the medications valproic acid or thalidomide, exposure to heavy metals and environmental toxins. Types of autism spectrum disorder were also discussed as asperger's syndrome, pervasive developmental disorder, autistic disorder and children integrated disorder. The paper identified some immediate symptoms of autism spectrum disorder as social skills difficulties, communication problems, unusual interest and behaviors. The impacts of autism spectrum disorder on child's learning formed the crux of this paper thus: narrow focus on information, language, development, poor non-verbal skills and narrow interest in vast learning. The paper recommend the panacea for autism spectrum problems as; applied behavior analysis, cognitive behavioral therapy, social skill training, medication and sensory integration therapy, it was concluded that autism spectrum disorder posses a great challenge to learning.

Keywords: autism spectrum disorder, asperger's syndrome, autistic disorder, childhood disintegrated disorder, pervasive disorder

Introduction

While much has been learned on how to educate children with Autism Spectrum Disorder (ASD), and program successes widely touted, children and youth with ASD are nonetheless at heightened risk for poor academic outcomes, including conflictual relationships with general education, teachers and more restrictive classroom placement. According to American Psychiatric Association, (2013), Autism spectrum disorders (ASD) are characterized by persistent impairments in reciprocal social interaction and communication across multiple contexts, along with the presence of restricted, repetitive and stereotyped behaviors and interests.

Indeed, it has been documented that individuals with Autism spectrum disorder have significantly higher behavior problems than those with intellectual disability and those with typical development (Gabriel, 2015). These heightened externalizing and internalizing problems evident in ASD, as well as poorer social skills, may also place these young students at risk for poor long-term school adjustment. Historically, in 1911 Swiss psychiatrist Eugen Bleuler coined the term autism (from the Greek *autos*, meaning "self"), using it to describe the withdrawal into the self that he observed in patients affected by schizophrenic disorders. However, in 1943 Austrian-born American psychiatrist Leo Kanner recognized autism as a disorder distinct from schizophrenia, giving autism its modern description. In the subsequent decades several autism like disorders also were identified, resulting in the group of conditions known as autism spectrum disorders, or ASDs.

Autism spectrum disorder begins early in childhood and eventually causes problem functioning in society –socially, in school and at work, for example. Autism is known as a "spectrum" disorder because there is wide variation in the type and severity of symptoms people experience. Autism spectrum disorder (ASD) occurs in all ethnic, racial, and economic groups (Centre for Disease Control and Prevention, 2019). Although Autism spectrum disorder can be a lifelong disorder, treatments and services can improve ability to function. The abilities and needs of people with autism vary and can evolve over time. While some people with autism can live independently, others have severe disabilities and require life-long care and support. Autism often has an impact on education and employment opportunities.

Causes of Autism Spectrum Disorder

Autism spectrum disorder (ASD) has no single known cause (Bennet, 2014). Given the complexity of the disorder, and the fact that symptoms and severity varies, there are probably many causes. Both genetics and environment may play a role. Some of the suspected risk factors for autism include: Genetic mutations, fragile X syndrome and other genetic disorders, having a sibling with autism spectrum disorder, having older parents, very low birth weight, fetal exposure to the medications valproic acid (Depakene) or thalidomide (Thalomid), exposure to heavy metals and environmental toxins.

Types of Autism spectrum disorder

These types use to be diagnosed individually by differences and intensity of symptoms:

1. Asperger's syndrome: This is on the milder end of autism spectrum. A person with Aspergers may be very intelligent and able to handle their daily life. They maybe really focused on topics that interest them and discuss them nonstop. But they have a much harder time socially.
2. Pervasive developmental disorder, not otherwise specified (PDD-NOS): It refers to the group of disorders characterized by delays in the development of socialization and communication skills. This mouthful of a diagnosis included most children whose autism was more severe than Asperger's syndrome, but not as severe as autistic disorder.
3. Autistic disorder: This older term is further along the autism spectrum than Asperger's and PPD-NOS. It includes the same types of symptoms, but at a more intense level.
4. Childhood disintegrative disorder: This was the rarest and most severe part of spectrum. It described children who develop normally and then quickly lose many social, language, and mental skills, usually between ages 2 and 4. Often these children also develop a seizure disorder.

In 2013, the Diagnostic and statistical Manual of Mental Disorders (DSM-5) revised these classifications. All types of autism are now merged into a single diagnosis of autism spectrum disorder (ASD).

Signs of Autism spectrum disorder

Children with autism spectrum disorder (ASD) might show the following signs according to Medical Research Council of America (MRCA, 2004).

- Not respond to their name by 12 months of age.
- Not point at objects to show interest (point at an airplane flying over) by 14 months.
- Not play "pretend" games (pretend to "feed" a doll) by 18 months.
- Avoid eye contact and want to be alone.
- Have trouble understanding other people's feelings or talking about their own feelings.
- Have delayed speech and language skills.
- Repeat words or phrases over and over (echolalia).
- Give unrelated answers to questions.
- Get upset by minor changes.
- Have obsessive interests.
- Flap their hands, rock their body, or spin in circles.
- Have unusual reactions to the way things sound, smell, taste, look, or feel.

Symptoms of Autism spectrum disorder

ASD begins before the age of 3 and last throughout a person's life, although symptoms may improve over time (MRCA, 2004). In others, symptoms may not show up until 24 months or later. Some children with an ASD seem to develop normally until around 18 to 24 months of age and then they stop gaining new skills, or they lose the skills they once had. Studies have shown that one third to half of parents of children with an ASD noticed a problem before their child's first birthday, and nearly 80%–90% saw problems by 24 months of age. The following are some

symptoms of Autism Spectrum Disorder.

1. Social Skill difficulties

Social skills are one of the most common symptoms in all of the types of ASD. People with an ASD do not have just social "difficulties" like shyness. The social issues they have cause serious problems in everyday life. Typical infants are very interested in the world and people around them. By the first birthday, a typical toddler interacts with others by looking people in the eye, copying words and actions, and using simple gestures such as clapping and waving "bye bye". Typical toddlers also show interests in social games like peek-a-boo and pat-a-cake. But a young child with an ASD might have a very hard time learning to interact with other people (Bennet, 2014).

Some children with an ASD might not be interested in other people at all. Others might want friends, but not understand how to develop friendships. Many children with an ASD have a very hard time learning to take turns and share—much more so than other children. This can make other children not want to play with them. Children with an ASD might have problems with showing or talking about their feelings. They might also have trouble understanding other people's feelings. Many people with an ASD are very sensitive to being touched and might not want to be held or cuddled. Self-stimulatory behaviors (e.g., flapping arms over and over) are common among people with an ASD. Anxiety and depression also affect some people with an ASD. All of these symptoms can make other social problems even harder to manage. Examples of social issues related to ASD include:

- Does not respond to name by 12 months of age
- Avoids eye-contact
- Prefers to play alone
- Does not share interests with others
- Only interacts to achieve a desired goal
- Has flat or inappropriate facial expressions
- Does not understand personal space boundaries
- Avoids or resists physical contact
- Is not comforted by others during distress
- Has trouble understanding other people's feelings or talking about own feelings.

2. Communication problems

Children with ASD often have difficulties in communication (World Health Organization, 2016). Children with ASD might say "I" when they mean "you," or vice versa. Their voices might sound flat, robot-like, or high-pitched. Children with an ASD might stand too close to the person they are talking to, or might stick with one topic of conversation for too long. They might talk a lot about something they really like, rather than have a back-and-forth conversation with someone. Some children with fairly good language skills speak like little adults, failing to pick up on the "kid-speak" that is common with other children.

Some children repeat what others say, a condition called echolalia. The repeated words might be said right away or at a later time. For example, if you ask someone with ASD, "Do you want some juice?" he or she might repeat "Do you want some juice?" instead of answering your question. Although many children without an ASD go through a stage where they repeat what they hear, it normally passes by three years of age. Some children with an ASD can speak well but might have a hard time listening to what other

people say.

Children with ASD has different communication skills. Some children can speak well. Others can't speak at all or only very little. About 40% of children with an ASD do not talk at all. About 25%–30% of children with ASD have some words at 12 to 18 months of age and then lose them. Others might speak, but not until later in childhood. Examples of communication issues related to ASD:

- Delayed speech and language skills.
- Repeats words or phrases over and over (echolalia).
- Reverses pronouns (e.g., says "you" instead of "I").
- Gives unrelated answers to questions.
- Does not point or respond to pointing.
- Uses few or no gestures (e.g., does not wave goodbye).
- Talks in a flat, robot-like, or sing-song voice.
- Does not pretend in play (e.g., does not pretend to "feed" a doll).
- Does not understand jokes, sarcasm, or teasing.

3. Unusual Interests and Behaviors

Children with ASD often thrive on routine. A change in the normal pattern of the day—like a stop on the way home from school—can be very upsetting to people with ASD. They might "lose control" and have a "melt down" or tantrum, especially if in a strange place. Some people with ASD also may develop routines that might seem unusual or unnecessary. For example, a person might try to look in every window he or she walks by a building or might always want to watch a video from beginning to end, including the previews and the credits. Not being allowed to do these types of routines might cause severe frustration and tantrums (Bennet, 2014).

Examples of unusual interests and behaviors related to ASD:

- Lines up toys or other objects.
- Plays with toys the same way every time.
- Likes parts of objects (e.g., wheels).
- Is very organized.
- Gets upset by minor changes.
- Have obsessive interests.
- Has to follow certain routines.
- Flaps hands, rocks body, or spins self in circles.

Impacts of autism spectrum disorder (ASD) on child's learning

One primary area where autism spectrum disorder affects children is in the area of learning. The transition to high school is a common cause of stress and anxiety, which can be intensified for pupils with ASD. Peters and Brooks (2016) focused on experiences of the transition to secondary school from the parents' perspective, and reported that factors such as anxiety, bullying, friendship and school support influenced pupils' transition to secondary school. Girls with ASD exhibited unique problems that were typically not seen among boys. This may indicate that girls with ASD need special attention from educational and health services. Pupils with ASD and other types of developmental delay are at an increased risk of a number of challenges, such as motor, sensory and social functions, which can affect their ability to work in school.

Children with autism may have average or above-average intelligence, but autism can still affect learning in a number of ways. Some of these learning difficulties can be effectively addressed, particularly with early interventions,

and in some cases, these learning difficulties are also accompanied by strengths unique to autistic children (Edmond, 2010). The following are five ways Autism spectrum disorder influences child's learning.

Narrow Focus

Children with autism may be able to focus acutely on details but may lack the ability to pull back and see the big picture. With a child, this might manifest in remembering the details of a story shared but not the main idea of the story. They may struggle to summarize their own or others' ideas. One way parents and educators might address this is by putting information into a pattern to reveal the larger pattern of the information as a whole.

Language Development Issues

Struggles with language are one of the main ways autism affects learning, and problems with language development and speech delays are often the first sign that a child may have autism. The National Institute on Deafness and Other Communication Disorders says that early intervention that takes into account a child's interests is one of the most effective ways to address language development issues. Parents and caregivers, as well as specialists, may participate in helping children with autism who have language delays better develop those language skills.

Poor Nonverbal Skills

Often people who cannot communicate verbally compensate with nonverbal communication. Unfortunately, this may not be an option for some autistic children who might also struggle with nonverbal communication. Actions such as eye contact and gestures may be difficult for autistic children. However, as with language development, these skills can also be developed, and in some cases, parents, caregivers and professionals may work with children on developing them before verbal language issues are addressed. For some autistic children, sign language may work as an alternative to verbalization.

Narrow Interests

Children with autism may be both focused and exceptionally skilled in certain areas such as mathematics or music. However, a narrow range of interests means it can be difficult to engage them in other areas of learning. These narrow and intense interests may also manifest in repetitive play or motions. Children may struggle to understand that others do not share the intensity of their interests and may not realize that they are frustrating people by asking many questions or talking about the interest extensively. However, it is possible to use these narrow interests as a jumping off point for a variety of learning opportunities. Children can research their particular interest and learn to manage how they communicate with others about it. This is also an opportunity to expand an autistic child's "big picture" skills by placing the interest in its larger context.

Attention Issues

Paying attention can be a challenge for children with autism. They can be easily distracted by stimulants that barely even register for people who are not autistic ranging from the texture of their clothing to bright lights to sounds and more. They may also find it difficult to focus on information that is outside their range of interest. However, parents,

caregivers and professionals can help autistic children develop their attention skills over time. Communication issues, a narrow focus and struggles with attention can all present learning challenges for autistic children. A better understanding of how autism can affect learning is an important step toward addressing those difficulties.

Cure for Autism Spectrum Disorder

There's no cure for autism, but several approaches can help to improve social functioning, learning, and quality of life for both children and adults with autism (Renee, & Alli, 2020). Remember that autism is a spectrum-based condition. Some people may need little to no treatment, while others may require intensive therapy. Some of the different approaches to treating autism include:

Applied behavior analysis (ABA)

Applied behavior analysis (ABA) is one of the most widely used autism treatments for both adults and children. It refers to a series of techniques designed to encourage positive behaviors using a reward system. There are several types of ABA, including: Discrete trial training, Early intensive behavioral intervention, Pivotal response training, Verbal behavior intervention, and Positive behavior support

Cognitive behavioral therapy (CBT)

Cognitive behavioral therapy (CBT) is a type of talk therapy that can be effective autism treatment for children and adults. During CBT sessions, people learn about the connections between feelings, thoughts, and behaviors. This may help to identify the thoughts and feelings that trigger negative behaviors. A 2018 review by World Health Organization suggests that CBT is particularly beneficial in helping people with autism manage anxiety. It can also help them to better recognize emotions in others and cope better in social situation.

Social skills training (SST)

Social skills training (SST) is a way for people, especially children, to develop social skills. For some people with autism, interacting with others is very difficult. This can lead to many challenges over time. Someone undergoing SST learns basic social skills, including how to carry on a conversation, understand humor, and read emotional cues. While it's generally used in children, SST may also be effective for teenagers and young adults in their early 20s.

Sensory integration therapy (SIT)

People with autism are sometimes unusually affected by sensory input, such as sight, sound, or smell. Social integration therapy is based on the theory that having some of your senses amplified makes it hard to learn and display positive behaviors. SIT tries to even out a person's response to sensory stimulation. It's usually done by an occupational therapist and relies on play, such as drawing in sand or jumping rope.

Medication

There aren't any medications specifically designed to treat autism (MRCA, 2004). However, several medications used for other conditions that may occur with autism might help with certain symptoms. Medications used to help manage autism falls into a few main categories: antipsychotics, antidepressants, stimulants, and anticonvulsants.

Conclusion

Autism spectrum disorder (ASD) affects children in their educational endeavors. Existing preparation programs for school administrators provide little knowledge considered necessary to understand the behaviors of students with ASD and implement inclusion programs. The high incidence of ASD indicates that educators across the nation will inevitably encounter a student with ASD, underscoring the need to prepare special educators in evidence-based approaches that enhance the academic and social learning opportunities for these children will not bring solution to them, rather educators should prepare special programs for these children.

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