How to Understand Autism Spectrum Disorder

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English Composition II

**Introduction**

 Are children with autism really different from others? Can you visually tell the difference between children with autism and children who are not autistic? I have two children and both of them have Autism Spectrum Disorder (ASD). My oldest child is 7 and we are still figuring out ASD. We have good days, we have bad days, and then there are those days where we are just trying to make it through the day. Do you know what Jerry Seinfeld, Thomas Jefferson, Abraham Lincoln, Albert Einstein, Mozart, and Bill Gates have in common? According to Angers (2018), all these famous people have ASD. This article gives people hope that individuals who have ASD can be the next President, a legendary composer, or even develop the next billion-dollar technology that will advance the world.

ASD is a complex topic that is not easy to comprehend; therefore, I will go into details to help individuals understand ASD. In order to understand ASD, there are a few topics we’ll explore which includes general developmental disorder and understanding what is ASD. Then, we will investigate what are the common signs and what disorders are related to ASD. We will also examine how is ASD diagnose and what roles do genes play? Some may also wonder how ASD is being treated, and how research is being done to understand ASD. Finally, we will investigate the benefits of understanding ASD conditions.

**Developmental Disorder**

 In order to understand ASD, we have to know what a developmental disorder is. “Developmental Disorders” (n.d.) added in its article that children with developmental disorders struggle to achieve early developmental tasks including motor skills, socialization, language, and communication. There are two types of treatments for children with developmental disorders such as specialized training and medication (“Developmental Disorders,” n.d.). Both of my son is receiving specialized training or additional assistance at school to help develop those necessary skills. “Developmental Disorders” (n.d.) stated that there are many different types of developmental disorders such as attention-deficit/ hyperactivity disorder (ADHD), learning disorders, communication disorders, and pervasive developmental disorders (autism).

Although there is a required age before an individual is tested, “Developmental Disorders” (n.d.) specified that early and precise diagnosis will help caregivers support the individual in need of assistance. For example, getting my son’s diagnosis helped us prepare and understand the types of treatments while anticipating other general problems that could occur. Healthcare professionals would schedule multiple visits and accumulate sufficient evaluations to diagnose a child. According to “Developmental Disorders” (n.d.), when a child does not achieve certain skill sets or developmental milestones in comparison to other same-aged children, physicians will recommend an additional test. This is the first step to understanding that autism may be the child’s diagnosis. The goal for diagnosing an individual is finding a treatment process that will help them expand their capabilities while preventing other problems from arising.

**What is Autism Spectrum Disorder?**

The next step to understanding ASD is knowing what ASD is about. Based on the “Autism Spectrum Disorder” (n.d.) article, ASD “refers to a group of complex neurodevelopmental disorder characterized by repetitive and characteristic patterns of behavior and difficulties with social communication and interaction.” For example, when my oldest son watches movies, he would make this loud “hmmm” sound over and over; or, he makes these babbling “leka leka leka” sound. On the other hand, my youngest son will memorize a movie line and repeat it all night. Autism Spectrum Disorder” (n.d.) explained that the Diagnostic and Statistical Manual of Mental Disorders (DSM-5, 2013) included pervasive developmental disorder, childhood disintegrative disorder, and Asperger syndrome as a part of ASD because they all include “an assessment of intellectual disability and language impairment.” While boys are considerably more likely to develop ASD, Autism Spectrum Disorder” (n.d.) stated that ASD occurs in every ethnic and racial group; moreover, 1 in 68 individuals have ASD.

Autism Spectrum Disorder (n.d.) stated that the word spectrum can refer to a wide range of levels, skills or symptoms of disability in functioning that happens with individuals with ASD. While some individuals with ASD can perform daily living tasks, others might require extra assistance to perform these basic activities. For instance, my oldest needs one-on-one assistance the entire school day while my youngest only needs assistance in the classroom. Stephen Shore believed, “if you’ve met one person with autism – you’ve met one person with autism” and, that is because all individuals are wonderfully different. The next process to understanding ASD is identifying some common signs.

**What are some common signs of ASD?**

Autism Spectrum Disorder” (n.d.) explained that children with ASD behave differently when compared to other children their own age. For example, when my son turned one year old, we knew something was different because he would stare at the wall and line up his toys in a straight order as if his life depended on it. Autism Spectrum Disorder” (n.d.) specified that children with ASD may (a) find it difficult to make eye contact, (b) become excessively fixated on certain objects, (c) require sameness of routine, and (d) exercise repetitive behavior. My sons have different reactions to this list. For example, if I take a different route home, my oldest son will have a temper tantrum until we turn around and take the same way home. On the other hand, my youngest son does not have a problem with the route I take home as long as he gets to ride in the passenger seat.

Moreover, Autism Spectrum Disorder” (n.d.) listed that individuals with ASD may be socially impaired because they (a)may have delayed speech, (b) prefer to be alone, (c) may have different verbal skills, (d) may repeat phrases, and/or (e) misinterpret body languages (gestures or tone of voice). Individuals with ASD may engage in tedious movements or strange behaviors, become preoccupied with parts of objects like the shoe of an action figure toy. My oldest son reacts similarly in a sense that he will rock from front to back or twirl whenever he is done watching his iPad. When we moved back to Tinian from Oregon, my son had an emotional outburst at the beach because everything was new and overly stimulating. Another way to understand ASD is knowing what disorders are related to ASD.

**What disorders are related to ASD?**

According to Furfaro (2018), there are conditions that overlap with autism including (a) classical medical problems, (b) developmental diagnosis, (c) mental-health conditions, and (e) genetic conditions. Sleep disorders or epilepsy are examples of classical medical problems; and, language delay or intellectual disability are illustrations of developmental diagnosis. Mental- health conditions include ADHD, obsessive-compulsive disorder (OCD), or depression; and, tuberous sclerosis complex and fragile X syndrome are instances of genetic conditions. Autism Speaks (n.d.) also mentioned additional medical conditions including gastrointestinal problems and feeding.

According to Autism Spectrum Disorder” (n.d.), individuals with ASD have a higher risk of having epilepsy or seizure-like brain activity; in fact, 20 to 30 percent of individuals with ASD develop seizures by the time they reach adulthood. Furfaro (2018) indicated that 11 to 84 percent of individuals with ASD have anxiety; and, 44 to 86 percent of children with ASD have serious sleep problems. Co-occurring conditions also complicate autism diagnosis. For example, Furfarok (2018) explained that diagnosing individuals may be difficult if they are experiencing severe language delays or intellectual disabilities. For example, one with ASD might have been mistakenly diagnosed with schizophrenia or ADHD.

 **How is ASD diagnosed?**

According to Autism Spectrum Disorder” (n.d.), ASD symptoms can vary from one person to another; in fact, young children with mild ASD symptoms might go unrecognized. Based on the signs, symptoms, and tests using the DSM-5, clinicians can diagnose an individual with ASD. Autism Spectrum Disorder” (n.d.), listed early indicators include (a) no babbling or point by 12 months of age, (b) no single words by 16 months, (c) no response to one’s name, (d) loss of language skills previously acquired, (e) poor eye contact, (f) excessive lining up of objects, and/or (g) no social responsiveness. Autism Spectrum Disorder” (n.d.) also listed later indicators including (a) cannot make any friends, (b) cannot initiate or sustain a conversation with peers, (c) impairment of social play, (d) repetitive use of language, (e) abnormal focused interest, (f) preoccupation with certain items or subjects, and/or (g) severe adherence to rituals or routines. When individuals show signs of possible ASD, Autism Spectrum Disorder” (n.d.) stated that a multidisciplinary team including a neurologist, a psychiatrist, psychologist, speech therapist, and other professionals create a comprehensive evaluation. To rule out other behaviors that could be mistaken, the team members conduct a comprehensive neurological assessment, a language test, and an in-depth cognitive test.

**What role do genes play?**

Is it possible that genes can tell us about ASD? According to Autism Spectrum Disorder” (n.d.), research shows that family and twin studies suggest that individuals have a genetic predisposition to ASD. For example, an identical twin study revealed that if one person is affected, the other twin will have a 36 to 95 percent chance of having ASD. Interesting fact, Autism Spectrum Disorder” (n.d.) revealed that there is an increased risk of having a second child with ASD if the first child diagnosed with ASD; and, many genes associated with ASD involve the function of chemical connections between synapses or brain neurons.

Autism Spectrum Disorder” (n.d.) mentioned that de novo or gene mutation can impact the risk of developing ASD because it changes the sequences of our DNA during fertilization. Studies show that “people with ASD tend to have more copy number de novo gene mutations than those without the disorder, suggesting that for some of the risk of developing ASD is not the result of mutations in individual genes but rather spontaneous coding mutations across many genes” (Autism Spectrum Disorder,” n.d.). Although there is not much research done to determine the role of environmental factors, Autism Spectrum Disorder” (n.d.) mentioned that ASD risks also increases when children are born to older parents.

**How is Autism Treated?**

Based on many interviews with physicians, there is no cure for ASD. Autism Spectrum Disorder” (n.d.) explained that the best action plan is to coordinate therapies and interventions that will meet the individual’s needs. There is two specific treatment for ASD including behavioral interventions and medications. Autism Spectrum Disorder” (n.d.) specified that behavioral or educational interventions “use highly structured and intensive skill-oriented training sessions to help children develop social and language skills, such as applied behavioral analysis, which encourages positive behaviors and discourages negative ones.” Family counseling is available to help families cope with the challenges of living with an individual with ASD. On the other hand, medication can help with some severe symptoms. Autism Spectrum Disorder” (n.d.) stated that medications can not cure ASD, but it can help with depression, anxiety, seizures, ADHD, and OCD. Autism Speaks (n.d.) stated that there is a safe guide when choosing to use medications including comparing options, considering risks and benefits, targeting symptoms, asking providers, and accepting the side effects.

Autism Speaks (n.d.) also listed additional behavioral treatments including (a) Applied Behavior Analysis (ABA), (b) Early start Denver Model (ESDM), (c) Floortime, (d) Occupational Therapy (OT), Pivotal Response Treatment (PRT), (e) Relationship Development Intervention (RDI), (f) speech therapy, (g) TEACCH, and (h) Verbal Behavior. Autism Speaks (n.d.) clarified how ABA is a therapy that understands learning and behavior in real situations by increasing helpful actions and decreasing harmful ones. ESDM is a behavioral therapy for younger people; and, according to Autism Speaks (n.d.), ESDM builds positive relationships through play which improves cognitive, language, and social skills. Floortime teaches parents to get down on the floor and interact with the child at their level expanding their communication skills. Autism Speaks (n.d.) indicated that OT focuses on learning strategies, play skills, and self-care; and, these strategies help with physical, social, cognitive, and motor skills. PRT is when therapists target areas of the child’s development including self-management, social interactions, and motivation. RDI is a family-based treatment that emphases emotional and social skills. Speech Therapy concentrates in communication and language to help improve one’s social, verbal, and nonverbal communication. TEACCH is an autism program that focuses on training, clinical, and research; Autism Speaks (n.d.) listed that TEACHH strengths visual processing, executive function, and social communication. The final treatment is verbal behavior therapy that focuses on communication and language.

**What Research is Being Done?**

In order to understand more about ASD, we must continue research on the subject. According to Autism Spectrum Disorder” (n.d.), National Institute of Neurological Disorders and Stroke (NINDS) continues to research knowledge about the nervous system and the brain. Autism Spectrum Disorder (n.d.) stated that The National Institutes of Health (NIH) formed the Autism Coordinating Committee about 20 years ago to enhance the coordination, quality, and pace to find a cure for ASD. There other organizations including Association for Science in Autism Treatment, Autism Network International (ANI), Autism Research Institute (ARI), Autism Science Foundation, and MAAP Services for Autism, Asperger Syndrome, and PDD.

Centers for Disease Control and Prevention (n.d.) also mentioned that Study to Explore Early Development (SEED) is the largest study in the U.S.A. that helps identify risk factors for individuals with ASD. According to the Centers for Disease Control and Prevention (n.d.), there are currently six SEED study sites that are a part of the Centers for Autism and Developmental Disabilities Research and Epidemiology (CADDRE). There is also an International Research program such as the CDC-Denmark Program that was set up to investigate public health issues, and a Brick Autism Project. Although these organizations may sound like letters, their research has helped many families all over the world dealing with ASD.

**The benefits of Studying ASD**

For many people, symptoms will improve with behavioral treatment and age and, those people will work and live life independently with little to no help. That is the benefit of studying ASD; so, we could help others live successful lives. But what can scientists gain from studying these conditions? Furfaro (2018) stated that understanding ASD and its conditions could improve the lives of people. For example, if Janice were able to better identify her child’s mutated genes, then that could lead to early detection, education, and treatments. The more scientists understand ASD, the easier it will be for clinicians to find effective treatments, and caregivers to seek treatment.

**Conclusion**

 In conclusion, individuals with ASD are all wonderfully different. Some people with ASD require additional assistance with daily tasks where others become the President of the United States. ASD is a complex topic that many struggles to understand. In order to understand ASD, there are a few topics we explored including general developmental disorder, understanding what is ASD, the common signs and what disorders are related to ASD. We also examined how ASD diagnosed, what roles do genes play, how it is being treated, and how research is being done to understand ASD. Finally, we investigated the benefits of understanding ASD conditions.

“Developmental Disorders” (n.d.) stated that children with developmental disorders struggle to achieve tasks including motor skills, socialization, language, and communication. Based on the “Autism Spectrum Disorder” (n.d.) article, ASD is a complex neurodevelopmental disorder with a wide range of levels, skills or symptoms of disability in functioning. The process of understanding ASD is knowing the conditions that overlap with autism, and how ASD is diagnosed through multiple testing. Studies have shown that genes do play a role in understanding ASD; and, treatments – medications or interventions can benefit people with ASD. Fortunately, there are numerous organizations researching and studying ASD; therefore, we could gather more information and improve treatment.

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**Neighborhood**

**Survey**

1. How many of your neighbors do you know have a child with Autism?

1 or 2                              3 to 4

5 or 6                              7 0r more

2. How often do you participate in activities in this neighborhood relating to Autism?

Often      sometimes           rarely            not at all

3. Rating from 1 to 5, 5 being the highest rating. How strong is the sense of community in this neighborhood?

1       2       3       4       5

4. How often do you visit the public parks in this neighborhood?

Often      sometimes   rarely   not at all

5. How satisfied are you with the public parks in this neighborhood? With 5 being the highest.

1       2       3       4       5

6. How well are the parks maintained?

Very good           Good            Poor              Very poor

7. Overall how safe is this park in this neighborhood for a child with autism? 5 with the higher rating

1       2       3       4       5

8. Overall how safe is this neighborhood? 1 lowest rating and 5 with the higher rating

1       2       3       4       5

9. How well maintained is this neighborhood?

Very good     moderate     needs work

10. How satisfied are you with your experience living in this neighborhood?

Very         moderate     poorly